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GUEST EDITORIAL

Epilepsy, a Reasonable Problem

THE misunderstanding and superstition governing epilepsy since ancient times has begun to give way to order. It is estimated that one in 200 of the general population is or has been subject to seizures. It is thought that 10 per cent of the general population has a cerebral dysrhythmia and theoretically carries a predisposition to seizures or allied disorders. In the campaign against epilepsy, as expressed by Lennox, "There are three main aspects of this question: Education of the public, treatment of the patient, and attainment of new knowledge." In this light some of the many ramifications in the field of epilepsy are reviewed for the general medical physician.

Epilepsy is not a disease. To have epilepsy there must be a convulsion. Epilepsy is thus a symptom. The understanding as presented by Hughlings Jackson describes the seizure as being a sudden excessive paroxysmal neuronal discharge. Electroencephalography adds the understanding that the neuronal discharge is electrical. A seizure occurs independent of will and if bilateral there is a loss of consciousness.

To diagnose a case of epilepsy is not enough. What is the focus and what is the cause is desired. This necessitates classifying the epilepsies. The clinical description of convulsions gives understanding to anatomical localization. Thus the events at onset and the aura preceding the seizure become important. For interpretation a knowledge of function of the anatomical parts of the brain is necessary. Chronologically age is important in understanding etiology. Seizures beginning before age two are commonly due to birth injury, degeneration, or some congenital malformation. Seizures with onset between two and twenty years are cryptogenic or presumptively due to birth injury, trauma, infections, etc. Seizures beginning at age thirty to forty are usually due to trauma, neoplasms, infections, etc. When seizures appear after age forty a neoplasm must be ruled out, although traumas, arteriosclerosis, hemorrhage and syphilis may be causes. To diagnose a seizure descriptively as grand mal, psychomotor, petit mal, or Jacksonian, it must also be grouped as symptomatic, focal, cryptogenic, or idiopathic. Symptomatic or focal epilepsy has a known etiology, pathological basis, or specific toxic cause. The idiopathic or essential epilepsy has a self-originating, unknown cause, or is called cryptogenic epilepsy to denote an obscure origin. Idiopathic epilepsy has a strong hereditary component. Petit mal seizures remain as the one true type of idiopathic epilepsy, seizure without known pathological association.

The study of seizures is aided by history, neurological examination, glucose tolerance tests, spinal fluid analysis, x-rays of the skull, pneumoencephalography, electroencephalography, and other indicated procedures.

Electroencephalography was made possible by Hans Berger in 1929. The EEG machine, utilizing electrodes placed on the skull, the cathode tube, and a magnetic field to move ink writing pens, records the brain wave electrical potentials. Electroen-

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cephalography is a neurophysiological research tool, a laboratory aid in the study of convulsions, an assistance in the localization of brain tumors and seizures. The interpretation of records necessitates a technical knowledge and specialization not unlike electrocardiography. There are normal and abnormal rhythms, waves, frequencies, voltages, and discharges. There are paroxysmal cerebral dysrhythmias characteristic of epileptic seizures, or interseizure abnormalities useful in diagnosis, sometimes called sub-clinical seizure discharges. It is useful in decisions as to choice of therapy and prognosis on a basis of brain wave pattern. It offers a laboratory guidance in statistical studies in epilepsy concerned with eugenics, heredity, marriage, trauma, other diseases with seizures, and allied disorders.

The treatment of seizures may be pharmacological or surgical. The important antiepileptic drugs of choice are phenobarbital, 5-5-diphenyl-hydantoin, Diphenyldantoin, ("Dilantin sodium"), and 3,5,5-trimethyl-oxazolidine-2, 4-dione, (Trimethadione: "Tridione"). A word of warning in the use of "Tridione", 3,5-dimethyl-5-ethyl oxazolidine-2, 4-dione ("Paradione"), Phenacetylurea ("Phenurone"), and 3-methyl-5-phenyl-5-ethyl-hydantoin (Mesantoin), in that they necessitate a specific knowledge as to toxic manifestations, a close supervision, and repeated monthly hematological examinations.

There are basic books for adequate reference by Temkin, Lennox, Penfield and Erickson, Penfield and Rasmussen, Gibbs and Gibbs, and the Proceedings of the Association for Research in Nervous and Mental Disease, Vol. VII, Vol. XXVI, and Vol. XXVII, are devoted to epilepsy, convulsive disorders and the cerebral cortex. There exists the American Epilepsy League, Inc., with an annual publication, "Epilepsia", containing reviews of all medical articles concerned with epilepsy. The League membership is open to all.

The interest and cooperation among physicians has led to a better understanding, diagnosis, therapy, and research to take away the stigma and offer solutions in the problem of epilepsy.

WEIR M. TUCKER, M.D.,
Richmond, Virginia

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The American Epilepsy League, Inc., Room 405, 50 State Street, Boston, Massachusetts.

TUBERCULOSIS AND PREGNANCY

C. LYDON HARRELL, M.D.,
Norfolk, Virginia.

Tuberculosis complicating pregnancy, and *vice versa*, has been, and still is, a very much debated subject. There does not appear to be any definite consensus of opinion. Most of the articles that have been written are by the phthisiologist, who treats the subject entirely from his view point, or the obstetrician, from his side; neither have tried to consider the two conditions together.

Generally speaking, a hundred years or more ago pregnancy was believed to exert a favorable influence on tuberculosis; so much so, that young married women, found to have tuberculosis, were advised to become pregnant. Twenty-five to fifty years ago the reverse was the accepted belief. In his book published in 1908, F. M. Pottenger[1] states that if any woman with active tuberculosis should become pregnant, she should have a therapeutic abortion before the third month. But then, in his book published in 1948, just forty years later, the word pregnancy is not mentioned in the index. The pendulum is rapidly swinging back! Some phthisiologists say treat them all and give them a chance—some obstetricians claim there is no real excuse for a therapeutic abortion for tuberculosis alone. To be sure, there must be a middle road where each and every case can be studied and handled according to the merits of the individual.

One will have to admit that collapse therapy has revolutionized the treatment of tuberculosis in all forms, both complicated and uncomplicated. There may be another revolution on the way in the use of antibiotics; one would not venture to speculate at the present time.

A brief review of the literature reveals the following views: Francis M. Pottenger, in his book published in 1908, states "a woman with quiescent tuberculosis may become pregnant and give birth to a healthy child. On the other hand, she may break down after the delivery. A woman with active tuberculosis, who becomes pregnant, runs a great danger of having the disease become more acute; however, she may improve for a while, but after delivery, when the disease becomes more acute and spreads, she will go rapidly down-hill. One is justified in teaching contraceptives in such cases and the question of therapeutic abortion should be considered."

In Goldberg's[2] book, published in 1939, an entire chapter is devoted to the study of tuberculosis and pregnancy, but concludes by saying a therapeutic abortion is rarely justified.

Tucker and Bryant[3], upon studying a thousand admissions in a lying-in hospital in Chicago, all of whom were colored, found eighteen cases, or 1.8 per cent to have tuberculosis on admission; three of these cases died following delivery, and one died seven and one-half months after delivery. In checking a similar number of white cases they found 1 per cent to have clinical tuberculosis. If an x-ray had been made of the chest at the time of the first prenatal examination, these deaths might have been avoided. In 1916, Norris stated that pregnancy definitely shortens the life span of tuberculous guinea pigs. In 1917, Theobold Smith stated that in cattle, parturition is frequently followed by a generalization of a local tuberculosis, with speedy decline and death.

David Cooper[4], in 1945, stated that in Philadelphia 20 per cent of the deaths among women in the child-bearing age was due to tuberculosis. He reports a case in a girl twenty-six years of age who became pregnant. She had stated that six years previous she was told she had a healed spot on her lung. After delivery, she developed acute tuberculosis and died. Yet he states there is no justification for the interruption of pregnancy!

De Lee and Greenhill[5], text 1937, stated "any case of advanced tuberculosis which does not respond to treatment is considered for a therapeutic abortion. Women with an active tuberculous lesion should be advised not to conceive because pregnancy may shorten their lives."

The modern treatment of pulmonary tuberculosis, as collapse therapy, has saved the lives of many women and prolonged the lives of many more.

Ornstein and Epstein used collapse therapy in eighty-two tuberculous pregnant women and reduced the mortality to 12.2 per cent. They do not feel that pregnancy has any influence on the course of pulmo-

*Read before the combined Interns and Resident Staff of the Naval Hospital, Portsmouth, Va., April 27, 1950.

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nary tuberculosis. Cutler reported twenty-six women who, following collapse therapy, had forty-eight pregnancies and gave birth to forty children. He feels that collapse therapy has definitely minimized the risk in such cases.

Friedman and Garber[6], of Birmingham, 1946, stated that pregnancy exerts little or no influence on the course of pulmonary tuberculosis.

Schaefer[7], in 1947, reported a group at Sea View Hospital, between 1920 and 1930, in which the pregnant group had a mortality of thirty-four per cent as compared with a non-pregnant group of thirty-three per cent. Then, from 1932 to 1939, when collapse therapy was instituted, the rate dropped to 1 per cent. He advocates the immediate termination of the pregnancy in all cases of caseous pneumonic disease with cavity formation, discovered in the first three months. If discovered after three months, disregard the pregnancy and treat the disease as if the pregnancy were not present.

I feel this is good sound advice, but one must remember that Sea View is a free institution serving the City of New York; it is abundantly staffed by experts, both medical and surgical. When a patient is admitted, she may forget her worries and remain until she is well.

In 1927, Alice M. Hill called attention to the appalling fact that only 10.6 per cent of our tuberculosis sanatoria would admit pregnant women and keep them through the pregnancy—sixty per cent would admit them for treatment until just before delivery, then they would have to go elsewhere. Thus, you find a majority of women with tuberculosis, who, becoming pregnant, face a real problem financially. Unless they are aborted, they become a care on the community and a public menace.

In 1941, Blue Ridge, our State Sanatorium at Charlottesville, opened its doors to pregnant women. All three of our State Sanatoria had refused to admit tuberculous women that were pregnant up to that date. On admission, they are sent to the OB Department of the University of Virginia Hospital for a pre-natal examination and instructions. They are then sent back to the Sanatorium where they remain on the cure until due. They are then re-admitted to the University Hospital for delivery; after discharge from the OB Department, they are re-admitted to the Sanatorium to continue the cure. The child is taken by the family.

From March, 1941, to March, 1949, twenty cases had been thus treated. Classification on discharge:

Quiescent	7
Improved	5
Unimproved	2
Still in Sanatorium	4

Two cases refused treatment after delivery.

Follow-up after delivery:

No information on twelve.

Improved 3.

One died of miliary tuberculosis two years after discharge.

Still in Sanatorium and improving 4.

The follow-up studies on these cases is most important. This is not usually done, especially by OB Departments.

C. J. Barone[8], and others, reviewed the admissions in the Elizabeth Steele Magee Hospital, of Pittsburgh, from January, 1930, to January, 1941—28,846 patients were delivered.

One hundred and three cases were known to have had pulmonary tuberculosis, 0.35 per cent. Of this number, sixty-two cases were available for clinical study.

Seven were considered inactive; four years later, all were living and well.

Five were considered quiescent; all living and well.

Ten cases were classified as having a minimal tuberculous lesion; one died. An incidence of ten per cent.

Two had moderately advanced, but inactive tuberculosis; one died.

One case of acute tuberculosis died.

One case of unilateral moderately advanced tuberculosis. Her lung was collapsed after her first delivery; second pregnancy is still living.

Nineteen classified as bilateral moderately advanced tuberculosis; five are dead.

Sixteen cases are classified as advanced pulmonary tuberculosis; 11 are dead.—Another wealthy institution with plenty of free bed space.

The mortality rate for the patients who delivered spontaneously was 19.2 per cent. Those delivered by Caesarean section was 36.3 per cent. The mortality of those whose pregnancies was terminated in the first three months was 38.5 per cent. Sixty-one and five tenths (61.5) per cent of the sixty-two patients had moderately advanced or far advanced pulmonary tuberculosis—forty-four per cent were dead, including all types of deliveries.

Richard Torpin[9], of Birmingham, makes this state-

ment in his new book published in 1948:—"A fact too often neglected is that the non-pregnant tuberculous patient needs expert care, and pregnancy only multiplies such need."

David R. Lyman, in 1943, studied a series of cases and reports where the disease was found active before pregnancy took place—14 per cent were dead. When the diseases developed during the pregnancy, 78 per cent were dead. In those cases that broke down with tuberculosis in the twelve months after delivery, the mortality rate was 60 per cent.

Fred M. F. Meixner,[10] in 1945, made this statement:—"The avoidance of pregnancy is the most important primary consideration for the tuberculous patient and her physician. No woman who has active tuberculosis should consider pregnancy for at least two years after complete arrest of her disease, or even longer if the treatment required to heal the lesion was difficult, or if there is the slightest doubt in the mind of the physician."

Another weak link in this program:—The average obstetrician pays very little attention to the chest during the pre-natal care. It is just as important to get an x-ray of the chest as it is to have a Wassermann test at the first examination. This cannot be over-emphasized!! Many early cases may be found that otherwise would be overlooked until it was too late.

The obstetrician who reports such favorable results in tuberculosis and pregnancy reminds me of the laryngologist who states he never saw a lung abscess following tonsillectomy. He rarely sees the patient after being dismissed from the hospital. A pulmonary abscess usually develops, if at all, ten days to a month following the operation. The obstetrician is primarily interested in a normal delivery, to discharge the patient with as near normal pelvic organs and perineum as possible. He is not interested in what happens to the lung, and in many instances there is no follow-up study from the stand point of tuberculosis or what happens to the mother or child. If so, the information is referred to another department. Consequently, the statistics from the OB Department alone are not dependable. The reaction or breakdown in the tuberculous lesion usually does not take place under six weeks, and it may be a year following the delivery. During the pregnancy the fetus is constantly rising in the abdominal cavity, shoving the diaphragm up and putting the lung at partial rest, exactly the same effect one gets in pneumoperitoneum. After the child is born, everything drops. The lung re-expands, adding more work to an already diseased lung. In addition to this, the added burden of caring for her child and other home responsibilities saps the strength of the mother at the very time she needs it most; consequently, weeks or months later, when the body can no longer stand the strain, the old tuberculous lesion opens up, there is a re-activation of the disease which, at times, spreads like fire.

A good rule to follow in cases with women who are found to have tuberculosis is this:—Advise them not to marry until the disease is arrested; if married, advise them to avoid pregnancy until the disease is apparently arrested.

Dr. G. A. Simpson[11], of Montreal, Quebec, reported 110 cases with tuberculosis.

I—Inactive pulmonary tuberculosis

Remained inactive _____48 cases or 86.4 per cent
Became active _____ 6 cases or 13.6 per cent

They did not say how long after delivery these figures were complied.

II—Active pulmonary tuberculosis

Became inactive cases __ 8 cases or 24.2 per cent
Remained active cases __12 cases or 36.4 per cent
Died _____13 cases or 39.4 per cent

They feel that the first pregnancy with tuberculosis is not a great risk; but repeated pregnancies at close intervals is dangerous. Child rearing is worse than child bearing!

Therapeutic Abortion with Tuberculosis, Thirty Cases

"The incidence in relation to all deliveries is 1.25 per 1,000."

"The incidence in relation to all cases of pulmonary tuberculosis in pregnancy is 27.2 per cent."

III—Inactive pulmonary tuberculosis cases

Died _____ 0
Now active _____ 1 or 14.3 per cent
Still inactive _____ 6 or 85.7 per cent

IV—In cases of active pulmonary tuberculosis

Died _____ 5 or 21.7 per cent
Still active _____ 6 or 26.1 per cent
Inactive _____12 or 52.2 per cent

To summarize these thirty-three patients with active disease, 75.8 per cent were either dead or still had active disease.

Of the thirty patients who had therapeutic abortions, 40 per cent were dead or still active and 60 per cent inactive.

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The question arises: If you had a pregnant woman with tuberculosis, what would you do? When should a therapeutic abortion be performed? First of all, the mother has the *final say*. Without her consent, *nothing can be done*. Secondly, two physicians must agree, the medical man and the surgeon. After careful examination and consideration, the doctors decide in the best interest of the mother's health and safety. And if she is to be aborted, both the wife and husband must sign the chart before the operation in order to make it legal. Even then, it cannot be performed in a Catholic Institution.

How is one to reach this conclusion? One should approach the subject from three angles:

1. Scientific or medical;
2. Public health;
3. Socio-economically.

There are certain types of cases on which we all practically agree should be aborted if recognized before the third or fourth month:

The far advanced active case;

Those with cavity and in the exudative stage;

Hemorrhage cases;

Laryngeal and kidney complications;

Any case with positive sputum.

On the other hand, minimal, early and moderately advanced cases may safely go through their pregnancy if in competent hands, and if they are willing to stick strictly on the cure, preferably in a tuberculosis sanatorium, until the time of delivery. Some cases with an open cavity may under-go pregnancy provided that the lung can be adequately collapsed, and that she remains on the cure. Pneumothorax, once started, should be continued for at least two years. If a patient while taking pneumothorax should become pregnant and wishes a child, all other things being equal, she may be carried safely through her pregnancy; but the pneumothorax treatment should be continued for at least a year after delivery.

In no cases should a patient with pulmonary tuberculosis be permitted to *nurse* or *care* for her child. The drain and strain on the mother is too great. The chances of infecting the child are almost 100 per cent.

It has been stated that a suppression of the hormones, as the stopping of ovarian function, has a beneficial effect on pulmonary tuberculosis; but this has not been proven. We know that often young girls with pulmonary tuberculosis will stop menstruating for months—"quite embarrassing at times." When the patient regains her health and strength, menstruation will be re-established without treatment. Whether this be due to a toxic condition or ovarian suppression, we do not know; it may be similar to the condition that goes on during pregnancy. I always felt it was one of nature's methods of preserving energy and metabolism to be used in a fight against the disease and in helping to restore body function.

It is also true that there are other conditions besides the medical and scientific side to be considered in tuberculosis and pregnancy:

1. The home and surroundings;
2. Financial set-up;
3. The ability to live and employ proper help.

It is not fair to the family or to the community to tell a woman with tuberculosis that she can go through with a pregnancy when she is unable to pay her way at a sanatorium or to employ help at home. She becomes a menace and a care on the community during the pregnancy and a double care afterwards. To illustrate:

A colored woman, age 27, apparently in good health, entered the Norfolk General Hospital in September, 1948; she was three months pregnant. She had a positive sputum and a cavity in the lower portion of the right lung, about 4 mm. in diameter. She already had two illegitimate children which are being cared for at city expense. I advised a therapeutic abortion and sterilization. It was done, her lung was collapsed, and she was sent to the City Hospital for treatment. I was criticized by one of my colleagues, who stated that she should have been treated and permitted to go to term. However, she would have been a drain on the community the rest of her life and the three children an expense. In all probability, they, in turn, would develop tuberculosis; I did not think it fair to the community. A physician should have other responsibilities in his community and State besides scientific medicine.

I feel that every woman with tuberculosis, who becomes pregnant, should be carefully considered by both the phthisiologist and obstetrician from a medical, sociological and economical view and decided on its merits. Do not abort and release, but insist on the patient taking the cure as long as necessary. As a consultant, never charge more than your usual fee; if you do, you lay yourself wide open to criticism.

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Remember, these people as a rule are in moderate circumstances and should be given financial consideration.

I feel that any woman who is pregnant, and found to have active tuberculosis, should be aborted before the third month, unless she is willing and able to stay on the cure until she has been delivered, preferably in a sanatorium. After the delivery, she should remain on the cure from six to twelve months, or for as long as necessary.

I have attempted to get information from many sources on the effect that streptomycin has on the fetus when given to the pregnant mother. Thus far, I have been able to obtain very little.

Personal Correspondence[12]:

Dr. Peck, of the Department of Pediatrics at Hopkins, sums up their limited experience in the Growth and Development Clinic by saying that, "of about four or five babies whose mothers were treated with streptomycin during pregnancy, there has been no proven toxicity or ill effect."

Dr. John Harvey, formerly of the Medical Department at Hopkins, writes that he has followed one case in which the mother was treated for three months with streptomycin for tuberculous enteritis. At the age of two, this child showed no evidence of vestibular damage.

Professor Et. Bernard[13] and B. Kreis, of Paris, France, write that "they treated fourteen tuberculous women who were pregnant and had tuberculosis with streptomycin. Streptomycin was used in 3 cases before the fourth month of pregnancy and in 11 between the fourth and seventh months. Three patients were given dihydrostreptomycin and the others streptomycin. The daily dose was 1 gram in 4 cases, 1.50 grams in 8, and 2 grams in 2; the total dose varied from 20 to 180 grams. One case had a spontaneous abortion the fifth month, occurred four days after beginning with streptomycin, and the patient died. None of the patients experienced any acute breakdown immediately after. Two of them became pregnant again without untoward incident. The tolerance to streptomycin was good. As regards the 13 children, 11 have developed normally, with no pathologic observations in the auditory system; one died within a month from mastodiditis." Et. Bernard and associates think that these results prove that streptomycin is not toxic for the fetus.

Professor Moulonguet, discussing another paper, stated that a case had been reported before the Society of Otorhinolaryngology of a case of deafness following the treatment of the child in this manner. He feels we should go slowly in the use of streptomycin in such cases.

I cannot over-emphasize the importance of the social economic condition where child-bearing and child-caring in tuberculosis is considered. Anxiety and worry play a great part in re-activation in tuberculosis.

I wish to make one statement in behalf of the use of BCG. I welcome the day when a reliable preparation of BCG will be available to those capable of using it. I feel that every infant born of a tuberculous mother should be immunized or vaccinated for tuberculosis and kept in a healthy, wholesome environment until he becomes tuberculin positive. This would be another great forward step in our tuberculosis control program. BCG is used by nearly every civilized country in the world except in the United States. Why not here?

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Wainwright Building.

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THE REMOVAL OF A MIGRATORY INTRAVASCULAR FOREIGN BODY FROM THE HEART

Report of a Case

WILLIAM R. SANDUSKY, M.D.
Charlottesville, Virginia.

The purpose of this paper is (1) to report a case in which a metallic foreign body having lacerated and entered the right internal jugular vein, descended to the chamber of the right ventricle of the heart from which point of lodgment it was successfully removed by operation, and (2) to make, without completely reviewing the literature, brief comment concerning other reported cases of migratory intravascular foreign bodies, with especial reference to the indications for the removal of those that have come to rest within one of the chambers of the heart.

REPORT OF CASE

The patient, a 19 year old American infantryman, was wounded in action in Germany on March 15, 1945. At the time he was in a squatting position in a deep foxhole while under artillery fire and was struck by shell fragments which caused penetrating wounds of the right neck, both shoulders and right flank. He did not lose consciousness and was able to proceed for a distance of approximately fifty yards to a jeep in which he was transported to the nearest battalion aid station. En route he recalled having heard the sucking of air in the neck wound. At the aid station dressings were applied to the wounds and sulfonamides were administered orally. He was then transferred to a field hospital in the forward area where further but unspecified emergency treatment was given. Later he was removed to an evacuation hospital where, on March 16, the neck and shoulder wounds were debrided and foreign bodies were removed from the latter.

In the note describing the debridement of the cervical wound it is stated that the missile tract seemed to go through the carotid sheath which was peppered with metallic foreign bodies and dirt. Apparently both the internal and external jugular veins were lacerated, for the operator describes dividing and

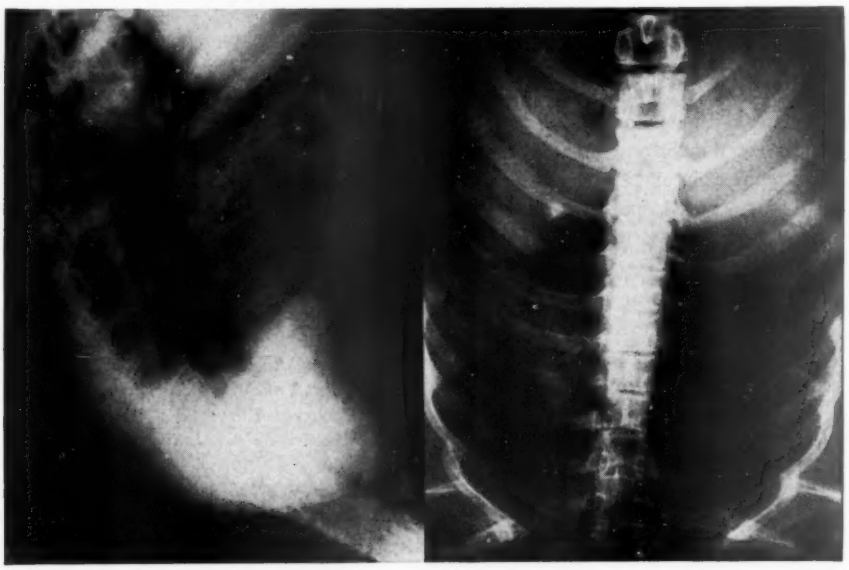

Fig. 1.—Photographs of roentgenograms (postero-anterior and lateral views of thorax) obtained March 29, 1945. Heavy penetration technic was used to show the foreign body. Note the double contoured appearance of the foreign body. This is due to motion of the heart, and is frequently observed in foreign bodies in or near the heart.

ligating them. The wound was debrided and as many of the foreign bodies as possible removed. Sulfanilamide was applied locally, a rubber drain was inserted alongside the trachea and the wound closed in layers. The patient was given 500 cc. of whole blood during the procedure.

A roentgenogram obtained prior to operation is described as showing a single metallic foreign body situated in the "lower left medial anterior chest at the level of the fifth rib anteriorly". The operator stated in a note written after the operation that he believed the foreign body to be in the right ventricle, it having entered the right internal jugular vein and descended to the heart.

On March 17 further roentgenographic studies consisting of both fluoroscopy and roentgenograms with the patient in various positions were done, and a note in the record states that these showed a small "churning metallic fragment" in the vicinity of the right ventricle. Its motion is described as being in harmony with that of the heart and not influenced to any degree by respiration.

The patient was transferred to a general hospital and a note dated March 18 indicates that the foreign body was "well stuck against the wall of the ventricle". An electrocardiogram was reported within the limits of normal.

The patient was evacuated through military medical channels and on March 27 arrived at a thoracic surgery center in the base section. He had been experiencing some pain in the left chest and numbness in the region of the right shoulder and neck. There were no symptoms referable to the cardiovascular system. He had been informed of the presence of a foreign body within his heart and he was worried, mentally depressed and apprehensive. He wanted the foreign body removed. Physical examination revealed that he was in an excellent state of nutrition and aside from healed scars in the region of the right neck, both shoulders and right flank, there were no visible abnormalities. A roentgenogram showed a small opaque foreign body superimposed on the cardiac shadow and situated near the apex of the heart (Figures 1 and 2). Fluoroscopic studies were made with the patient in various positions and in none could the foreign body be rotated out of the right ventricular shadow. Moreover, the movement of the foreign body was synchronous with the pulsations of the right ventricle. An electrocardiogram showed left axis deviation and was interpreted as within normal limits.

A pre-operative diagnosis of metallic foreign body situated within the chamber of the right ventricle was made. It was postulated that the foreign body was migratory in nature, having entered the vascular system by way of the right internal jugular vein from which point it descended to the right ventricle where it had lodged. A decision was reached that this foreign body should be removed.

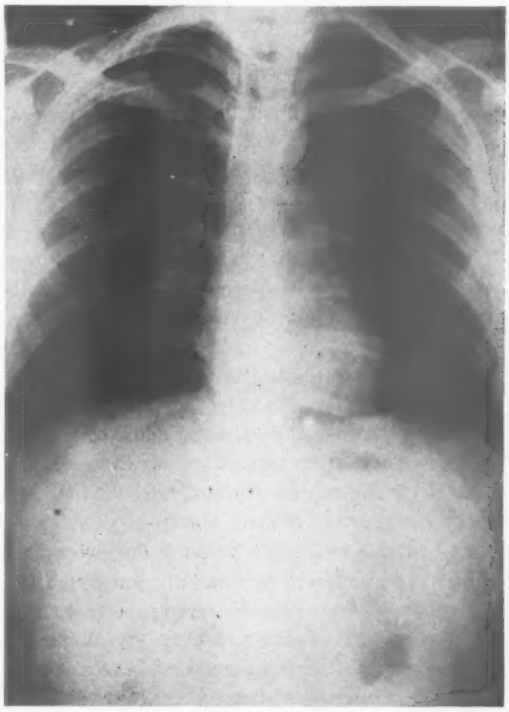

Fig. 2.—Photograph of roentgenogram (postero-anterior view of thorax) obtained April 5, 1945. Note position of foreign body in relation to the cardiac shadow. This relationship is not so apparent in the roentgenogram shown in Figure 1.

The patient was operated upon on April 17 under endotracheal nitrous oxide, oxygen and ether anesthesia. A curved incision sixteen centimeters in length was made, beginning at the left third costochondral cartilage and extending downward parallel to the left border of the sternum to the left fifth interspace. It was then directed laterally in this interspace until the midclavicular line was reached. Several fibers of the pectoral muscles were reflected laterally to expose rib and cartilage. The entire left

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fifth costal cartilage was resected and the fourth divided. The internal mammary vessels in the fifth interspace were ligated and divided. That portion of the incision in the left fifth interspace was deepened to the pleura which was then incised. The pericardium was exposed and opened using an "L" shaped incision, one side of which extended laterally almost to the phrenic nerve. The pericardial sac was entirely free from adhesions. The foreign body could be palpated through either the anterior or posterior wall of the heart and lay within the chamber of the right ventricle near the apex. It appeared to be adherent to the posterior wall. The heart was stabilized by placing three sutures in the myocardium near its apex. Four silk sutures (size 00) were passed through the posterior myocardium into the ventricular cavity. They were carried completely around the foreign body and brought out through the myocardium, forming a hammock or sling in which the foreign body rested. This was done so that the foreign body would not be dislodged in removing it and also so that when the heart was opened bleeding could be controlled by crossing these sutures. After this preparation, an incision one centimeter in length was made in the myocardium immediately over the foreign body exposing one surface of it. The foreign body was then lifted from its point of lodgment and removed from the cavity of the ventricle. There was a single gush of blood which was not repeated after the four hammock sutures were crossed. Three of these sutures were tied, thus closing the defect in the myocardium. These were reinforced by sutures of fine cotton (size 40) placed between the silk sutures, but not carried through the full thickness of the myocardium. The incised edges of pericardium were loosely approximated with interrupted fine cotton sutures (size 40). The lung was re-expanded by positive pressure. The divided fourth costal cartilage was united with interrupted silk sutures (size 00). The intercostal space was closed with the same suture material. The remainder of the wound was closed in layers using interrupted fine cotton sutures. No drain was placed. No topical chemotherapeutic agent was used. Throughout the procedure the heart was bathed frequently in 5 per cent procaine solution, a total of 150 cc. being used. After the foreign body had been removed the patient made several clonic convulsive movements of the lower extremity and twitching about the mouth was noted. These ceased after the administration of 7 cc. of 3 per cent sodium pentothal solution. A transfusion had been started and 50 cc. of whole blood had been given. This was stopped immediately and no more blood administered. Whether this episode was due to transfusion reaction, sensitivity to novocaine, or to some other cause, was not determined and as far as could be ascertained, no residual abnormality resulted. The operative procedure lasted three and one-quarter hours and the patient stood it extremely well, his blood pressure at the start being 100/60 millimeters of mercury and at the finish, 110/55. The maximum pulse rate during operation was 118 per minute. The foreign body was metal, rectangular in shape, rough in outline, and measured 0.85 x 0.6 x 0.25 centimeters (Figure 3).

Following operation the progress of the patient was entirely satisfactory. His pulse, temperature, and respirations were normal throughout the post-

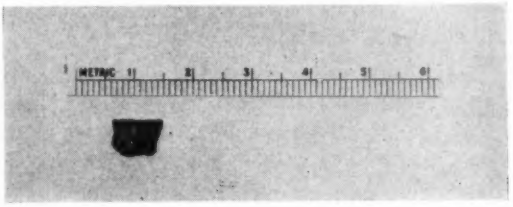

Fig. 3.—Photograph of the foreign body removed. (The measuring scale is in centimeters.)

operative period. The wound healed *per primam* and there was no evidence of residual pericarditis or pleuritis although a roentgenogram obtained on the third post-operative day showed small collections of fluid both in the pericardium and pleura (Figure 4). These were subsequently absorbed. The first post-operative lateral roentgenogram also showed a tiny opacity situated on the posterior wall of the heart and thought to represent a tiny metallic foreign body (Figure 4). On the day after operation he was allowed out of bed and there was an uninterrupted graded activity thereafter.

On April 21 an electrocardiogram showed slight S-T elevation in lead I, questionable elevation in lead II, low T wave in lead I, and a flat T wave in CF_4. These changes were interpreted as due to pericarditis secondary to the operative procedure.

On June 1 the patient was discharged from the thoracic surgery center in the base section and evacu-

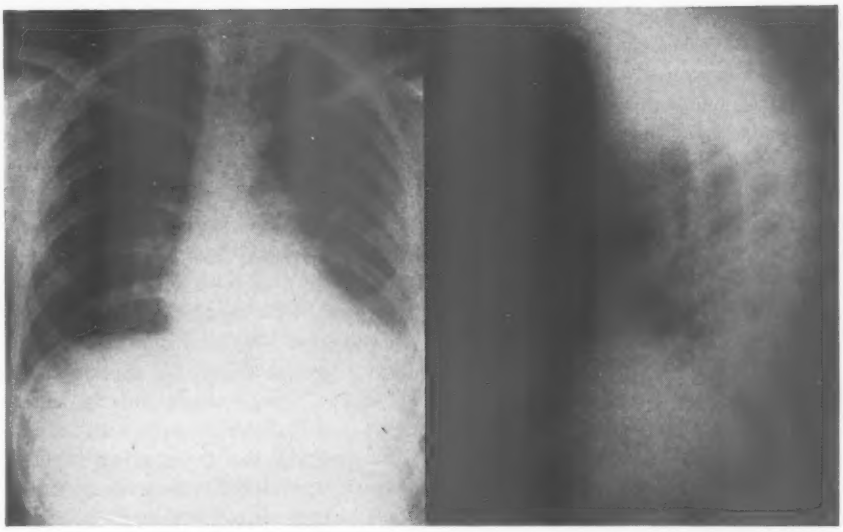

Fig. 4.—Photographs of roentgenograms (postero-anterior and lateral views of thorax) obtained April 20, 1945, three days following operation. Note that the foreign body seen in Figures 1 and 2 is not present. A tiny opaque density probably representing a metallic foreign body can be seen in the lateral roentgenogram.

ated to the Zone of the Interior. The record of hospitalization beyond this date was not available at the time of preparation of this report but the patient states that he was admitted to a general hospital where he remained one week before being transferred to a center for the purpose of being separated from the military service.

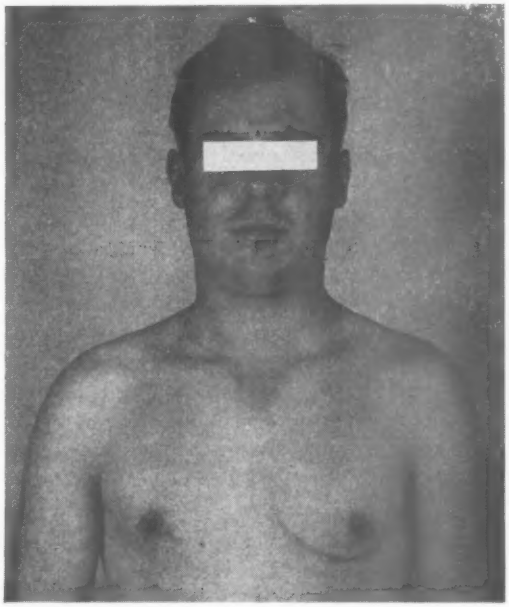

Fig. 5—Photograph of patient obtained September 17, 1948. Note scars of cervical and thoracic operative incisions.

On September 17, 1948, the patient was seen for a follow-up examination (Figure 5). He stated that on the advice of several physicians he had refrained from participating in strenuous physical exertion. At that time he had been engaged in a sedentary occupation which required minimal physical activity. He related having occasionally experienced pain in the cardiac region and sometimes while lying in bed having noticed pounding of his heart. Otherwise there had been no cardiovascular symptoms. Examination revealed nothing remarkable other than the healed operative scar on the left anterior chest wall. There was no defect or weakness of the thoracic cage. Also apparent was the operative scar thirteen centimeters in length in the right cervical region, and smaller irregular scars on both shoulders and in the right flank. Auscultation of the heart revealed no murmurs. Fluoroscopic examination showed no abnormality other than a small opaque density two millimeters in size thought to be on the posterior wall of the right ventricle and thought to represent a metallic foreign body. This foreign body is visible on the post-operative lateral roentgenogram shown in Figure 4. The electrocardiogram was within normal limits.

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COMMENT

There are at least 66 instances recorded in the medical literature between the years 1834 and 1948 in which foreign bodies migrated within the blood vascular system. Undoubtedly there are others not reported, as well as some on record which have escaped the notice of reviewers. According to Straus[16] the first recorded case of a migratory intravascular foreign body is that which Davis[3] reported in 1834. Decker[4] in an article dealing with foreign bodies of the heart and pericardium cited 23 examples of migrating foreign bodies which he collected from the literature between the years 1900 and 1938. In 1942 Straus added one personal case and briefly summarized each of 33 previously reported ones. Three of these cases had already been included by Decker and in three other instances there is some doubt about the foreign body having been migratory. In 1946 Harken and Williams[9] reported an experience with three, and in addition found five cases of migratory intravascular foreign body recorded prior to 1942 but not included in the reports of either Decker or Straus. Single cases have been recorded by Samson,[14] Robertson[13] and Cooper, Harris and Kahn.[2] Miscall and Harrison[12] have reported two cases. Samson[15] states that during World War II one U. S. Army Auxiliary Surgical Group functioning in field and evacuation hospitals in the forward areas observed 75 instances of wounds involving the heart and pericardium. Among this number there were four examples of foreign body migration either to or from the heart. Two of these had been reported[13,14] previously.

The paths of intravascular foreign body migration, in theory, may be as varied as the vascular system itself. Harken and Williams[9] have called attention to the bizarre embolic courses and dramatic developments that have characterized many of the cases on record and they have gone into detail in describing some of the patterns of migration. In summary, it can be said that the foreign body may enter either an artery or a vein and proceed by the force of the blood stream or of gravity or of both toward or away from the heart. If the foreign body reaches one of the cardiac chambers by migration or by direct penetration it may come to rest or it may migrate, falling into the venous system or being swept into the arterial system as an embolus.

Among the cases recorded in the literature five are similar to the one herein reported in that they are examples of migratory intravascular foreign bodies which came to rest in one of the chambers of the heart from which successful removal was accomplished. They are summarized briefly as follows: According to Decker, Bichat[1] in 1916, successfully recovered a shell fragment which was lying free in the right ventricle and which had migrated there from the inferior vena cava. A case is recorded by Freund and Caspersohn[6] in which a 13 mm. shrapnel ball was taken out of the right ventricular cavity. The wound of entry was situated at the right costal arch in the nipple line; therefore, the projectile might have entered the right ventricle directly, but the surgeon found no evidence of a wound in the myocardium and concluded that the missile first entered the vena cava and reached the ventricle indirectly. Another case in Decker's collected series of migrating foreign bodies is one attributed to Duval[5] in which a bullet, having entered the thorax, was successfully removed from the right auricle. In 1944 Samson[14] operated upon a German prisoner of war who had been wounded several days previously. The wound of entry was in the thorax and fluoroscopic studies revealed an opaque foreign body identified as intracardiac. At operation a 45 caliber bullet was found within the cavity of the right ventricle 3 cm. to the right of its apex. The missile was removed after incising the ventricular wall and the patient made a satisfactory recovery. Although the portal of entry into the vascular system was not demonstrated, it was postulated that the bullet did not traverse the myocardium, since there was no residual damage to that structure or to the pericardium. The surgeon thought that the foreign body entered either the superior or inferior vena cava just outside the pericardium from which it was washed into the right ventricle. A case reported by Miscall and Harrison[12] is that of a soldier initially wounded in the abdomen. A roentgenogram taken preoperatively showed a metallic foreign body in the pelvis which, however, could not be found on exploratory celiotomy. Subsequent roentgenograms showed that the foreign body had disappeared from the pelvis and on further study it was found to be in the heart. It was removed from the right ventricular chamber and the patient experienced an uneventful recovery.

Harken[8] has operated upon and removed intracavitary cardiac foreign bodies from 13 patients

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without a fatality. It is interesting that none of these were missiles of embolic origin. He and Zoll[10] point out the indications which initially influenced their decision to remove intracardiac foreign bodies. These are as follows: (1) to prevent embolism of the foreign body or associated thrombus, (2) to reduce the danger of bacterial endocarditis, (3) to prevent recurrent pericardial effusions, and (4) to diminish the incidence of myocardial damage. Clinical evidence is cited to support the first and fourth reasons, but the second tenet is based on laboratory experiments and clinical support for it is not complete. In regard to the third indication, which has been stressed in the medical literature, these observers state that they have seen two patients with recurrent pericardial effusions but that the symptoms were not severe enough to justify intervention. In the course of their experience with intracardiac foreign bodies, two other reasons became apparent to Harken and Zoll.[10] One was pain, which occurred rarely; the other, cardiac neurosis which was observed frequently. The latter may become an important consideration in spite of efforts to reassure the patient. They found that all of their patients with foreign bodies in or near the heart wanted them removed.

There is always the danger that any foreign body may become a nidus for infection, particularly when organic material such as clothing is carried in by the metallic fragment. An extreme example of the danger of infection as related to intravascular foreign bodies, is illustrated in the case reported by Lyle,[11] in which a metallic foreign body with fragments of clothing adherent to it migrated from a wound of entry in the thigh to the cavity of the right ventricle, following which the patient died of generalized gas bacillus infection.

While the decision for surgical removal of any foreign body must be based on the clinical appraisal of the individual patient, there appear to be at least four well founded reasons for the removal of foreign bodies which have come to rest in one of the chambers of the heart, namely, to prevent or to diminish the incidence of (1) embolism, (2) myocardial damage, (3) infection, and (4) cardiac neurosis. However, all observers are not in agreement concerning the wisdom of removal of intracardiac foreign bodies. Fritz, Newman, Jampolis and Adams[7] cite their own animal experiments together with examples from the literature in support of the nonoperative viewpoint. They conclude that the majority of foreign bodies retained in the heart may be permitted to remain undisturbed as long as they are not producing symptoms or signs of cardiac dysfunction.

SUMMARY

(1) A case is reported in which a metallic foreign body, having lacerated and entered the right internal jugular vein, passed by way of this vessel into the chamber of the right ventricle of the heart from which point of lodgment it was successfully removed by operation.

(2) Brief reference is made to previously recorded cases of migratory intravascular foreign bodies.

(3) The indications for removal of foreign bodies which have come to rest in one of the chambers of the heart are listed.

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New Books.

Below are listed some of the newer books in the Tompkins-McCaw Library of the Medical College of Virginia, Richmond. These are available to our readers under usual library rules:

Bush & Hattery—Scientific research: its administration and organization.
Ciba foundation symposium—Toxaemias of pregnancy.
Grimes—When minds go wrong.
Hurd—Man and his sociological and psychological environment.
Kampmeier—Physical examination in health and disease.
Kirk—Quantitative ultramicroanalysis.
Moore—The individual in simpler forms.
National Research Council—Industrial laboratories of the United States. 9th edition.
Progress in neurology and psychiatry. Vol. 4, 1949.
Rinkel, Randolph & Zeller—Food allergy.
U. S. Naval Medical School—Color atlas of pathology.

Neomycin Effective in Treating Blood, Urinary Infections.

Said to be highly effective in destroying a variety of disease organisms, neomycin—one of the newer antibiotics—has proved beneficial in many cases of blood and urinary tract infections where other antibiotics in current use have failed. This is reported by Drs. Garfield G. Duncan, John R. Wolgamot and Barkley Beidleman, and Carl F. Clancy, Ph.D., in the January 13 J.A.M.A. All are associated with Pennsylvania Hospital, Philadelphia. Dr. Duncan is director of the medical divisions of the hospital and Benjamin Franklin Clinic; Dr. Wolgamot is Rutgers University Research associate at the hospital; Dr. Beidleman is assistant physician to out patients, and Dr. Clancy is the hospital's bacteriologist.

Ten patients suffering with bacterial infections of the blood or urinary organs were treated with the drug. Preliminary laboratory tests showed that the disease organisms were not affected by other methods of treatment, including antibiotics such as penicillin, streptomycin, aureomycin and chloramphenicol, but were sensitive to, or affected by, neomycin.

Results of neomycin treatment were "dramatically effective," the doctors report, in destroying organisms shown by test to be sensitive to it. They considered it "significant" that in no case in which the disease bacteria were eliminated did they return after treatment was stopped.

Reports of toxic effects were confined to one patient and it was necessary to discontinue treatment. She complained of hearing difficulties and the doctors found her kidney function was impaired. Her hearing improved on cessation of treatment; however, the kidney ailment persisted.

Research work at the hospital laboratory already has been successful in isolating 62 organisms of wide variety which are sensitive to neomycin but resistant, or only slightly sensitive, to other antibiotics.

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EFFECTIVENESS OF AUREOMYCIN IN TREATMENT OF TULAREMIA—
Report of Two Cases

ELMER S. ROBERTSON, M.D.,*
Richmond, Virginia,
CLAIBORNE T. JONES, M.D.,
Petersburg, Virginia,
and
GEORGE E. SNIDER, M.D.,*
Richmond, Virginia.

Recent reports, including those of Woodward[1], Spink[2], Ransmeier[3], and their associates, have indicated that aureomycin is highly effective in the treatment of tularemia. The authors recently observed two patients, having the ulceroglandular type, who showed excellent response. One was hospitalized; the other was treated successfully in the home.

Case No. 1:—A sixty-year-old white housekeeper was admitted to the hospital on January 12, 1950, complaining of high fever associated with a "sore" involving the left little finger.

She was in good health until one week prior to entry when she was taken with an illness which she considered to be the "grippe," characterized by malaise, chilliness, weakness, and temperature of 103° F. There had been essentially no other symptoms except for slight aching involving the back of the neck. The illness had begun one week after she had prepared numerous wild rabbits. The site of a "hang nail" became inflamed and a black ulceration with infection under the finger nail appeared. Part of the finger nail was removed by the family physician. Twenty-four hours before admission, she noted a "red streak" up her arm and her physician had given two injections of penicillin (Crysticillin).

The day of admission the temperature was 103° F. Since a friend (Case 2, who had handled several of the same group of rabbits) simultaneously had an illness characterized by similar symptoms, tularemia was suspected and agglutinations were obtained.

On examination the patient was found to be in good general condition. The temperature was 102.4° F. and the blood pressure was 140 mm. Hg. systolic and 90 diastolic. An ulcerated area involved the tip of the left little finger where part of the nail had been removed. There was an area of lymphangitis, along the medial aspect of the arm. There was tenderness of the axillary lymph nodes but there was no fluctuation. Some tenderness was elicited on deep palpation in the region of the spleen.

The laboratory data were as follows: WBC 8,800; neutrophils 66%; lymphocytes 24%; monocytes 10%; sedimentation rate 24 mm. in one hour. The urinalysis and serological test for syphilis were negative. The electrocardiogram was within normal limits.

In spite of the lack of initial laboratory confirmation, the clinical diagnosis of tularemia was made. Since no fluctuation was present and since there was evidence of secondary mixed infection, aspiration of the regional lymph nodes was not attempted.

The patient was given aureomycin, one 250 mg. capsule every two hours for three days, then one capsule every four hours, the total number of capsules administered being 52. Penicillin (Duracillin, fortified, 1 cc. intramuscularly daily) was administered concurrently because of the secondary infection.

There was remarkable subjective and objective improvement. Within forty-eight hours the temperature had returned to normal and the lymphangitis was less marked. Within seventy-two hours (except for the area of healing ulceration) the patient was clinically well. She was discharged from the hospital on the sixth day.

The agglutinations, which were repeated twice during the period of hospitalization, were reported as negative. However, repeat tests done on the thirteenth day after discharge revealed four plus agglutination to tularemia in all dilutions up to 1:320. The patient had remained symptom-free and the lesion involving the finger was healing.

Case No. 2:—The patient was a fifty-two-year-old white barber, who on December 26, 1949, had skinned a wild rabbit. On January 3rd, 1950, he

*Department of Internal Medicine, St. Elizabeth's Hospital, Richmond, Va.

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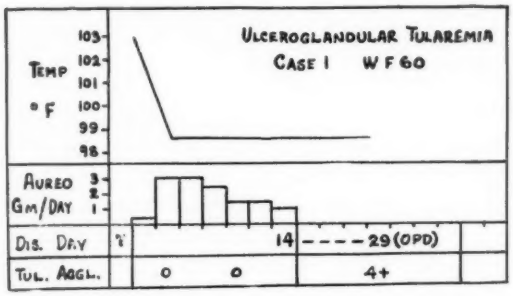
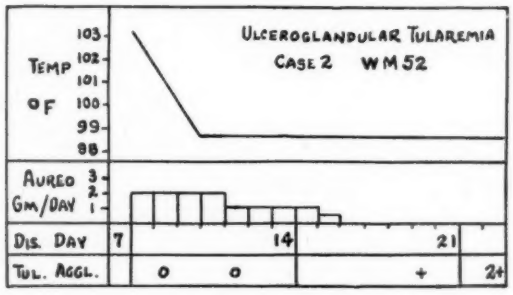
prepared several rabbits and a few squirrels. The patient had a small abrasion on his right ring finger to which adhesive had been applied. Symptoms paralleled those of Case No. 1 with marked elevation of temperature, malaise and the appearance of an ulcer on the finger.



Tularemia was suspected and treatment in the home with aureomycin was begun. The temperature had been 103° F.; within thirty-six hours this had fallen to normal and the symptoms gradually subsided. Aureomycin capsules (250 mg.) were given, two every six hours for four days, at which time the dosage was reduced to one capsule every six hours, the total number of capsules administered being 52.



Agglutination reactions were as follows: January 24, 1950, tularemia positive in 1:50 dilution, B. abortus positive 1:50; on January 27th tularemia positive 1:200 and B. abortus 1:50.

DISCUSSION

In the two cases observed by the authors, no untoward reactions to aureomycin were noted. A small quantity of food or milk[4] was given just prior to the administration of the aureomycin to prevent the development of nausea or other gastrointestinal disturbance. Although aluminum hydroxide has been administered with aureomycin in order to prevent nausea, it has been shown by Waisbren[5] and others that the administration of alkali reduces the effectiveness of the drug and for this reason should not be used.

Woodward[1] and his colleagues have reported that aureomycin has shown significant beneficial effect on mice, experimentally infected with tularemia. In three human cases, including one which probably would have been fatal without chemotherapeusis, prompt recovery followed the administration of aureomycin. These authors feel that the response of these patients to aureomycin was comparable to that which might have been produced by administration of streptomycin.

Ransmeier, Price and Barnes[3] reported treating three cases of tularemia with aureomycin; one case of tularemic pneumonia and one of ulceroglandular tularemia improved immediately after oral aureomycin therapy and rapid recovery followed. Another patient, with ulceroglandular tularemia, treated on the twelfth day of illness, improved subjectively. Glandular suppuration, however, was not prevented.

Prior to the introduction of aureomycin, treatment of tularemia with streptomycin was found to be satisfactory. Other drugs, however, failed to prove effective. Sulfonamides showed questionable therapeutic effect, and penicillin was found to be of no value.

Since there have been no harmful side effects reported with the use of aureomycin, if the response continues to be as favorable as in those cases which have been reported, aureomycin may prove to be the drug of choice in the management of tularemia. Indeed, Long[6] and his associates have stated that aureomycin is the drug of first choice, and streptomycin of second choice.

SUMMARY

This report describes two cases of ulceroglandular tularemia successfully treated with aureomycin.

Aureomycin may be the drug of choice in the treatment of tularemia.

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Another Study Shows Antihistaminics Ineffective in Treatment of Colds.

Carefully controlled studies conducted at the University of Illinois College of Medicine and the Chicago College of Optometry "demonstrate that antihistaminic drugs do not prevent, abort, shorten, curtail, reduce or stop the common cold," according to Dr. Noah D. Fabricant of Chicago, clinical assistant professor of otolaryngology at the university. He reported these findings in the *Archives of Otolaryngology*, published by the American Medical Association. He confirmed numerous similar studies in the United States and Great Britain.

"It was observed," he said, "that antihistaminic drugs are no more effective than placebos [harmless and inert pills] in aborting a cold and that there is no validity to the contention that antihistaminic drugs are more effective if taken within a short time after the start of a cold."

He cited like findings in other studies and added that "sufficient time has elapsed and enough convincing evidence has been accumulated" to establish the ineffectiveness of the drugs in the treatment and prevention of colds.

Dr. Fabricant's studies involved 139 students at the Chicago College of Optometry and 74 students at the University of Illinois College of Medicine. They were conducted through the winter and early spring of 1950.

Possible Hardening of Arteries from Cortisone, ACTH.

The possibility that hardening of the arteries will result when cortisone and ACTH are administered to patients over a prolonged period of time is brought forth by three doctors associated with Mount Sinai Hospital, N. Y., who are studying the side-effects of the newly discovered drugs.

"The factor of prolonged therapy assumes a particular importance," said Drs. David Adlersberg, Louis Schaefer and Stanley R. Drachman, "because of the increased availability of these drugs. It may be expected that many patients with chronic diseases will now receive long courses of cortisone and ACTH therapy."

In the November 11 issue of the J.A.M.A., the doctors report that in 36 percent (17 instances) of the 47 courses of the drugs administered, cholesterol (a fat-like substance in the body) was elevated to excessive levels. This condition is called hypercholesteremia.

This is of extreme importance because medical researchers believe that a definite relationship exists between hypercholesteremia and hardening of the arteries.

The doctors further observed that the longer the treatment and the larger the dosage the more pronounced the condition (hypercholesteremia) became.

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THE RHINOLOGICAL ASPECTS OF CHRONIC DACRYOCYSTITIS*

FRANCIS HENRY MCGOVERN, M.D.,
Danville, Virginia.

Chronic dacryocystitis is generally described as an inflammation of the lacrimal sac secondary to stenosis of the nasolacrimal duct. The stricture of the nasolacrimal duct is said to be caused by ascending extension of acute or chronic infection or disease of the nose or paranasal sinuses. It was thought interesting to make a rhinological survey in cases of chronic dacryocystitis for two reasons: first, to determine the extent of nasal and paranasal sinus pathological lesions in these cases, and second, to consider the relationship between these findings and the dacryocystorhinostomy operation. A small series of twenty-five cases was available and the results are here reported.

From a review of the literature, it is obvious that the majority of authors agree that chronic dacryocystitis is a result of congenital or acquired stenosis of the nasolacrimal duct, initiated by infection or disease of the nose or paranasal sinuses: trauma, tumors, and specific granulomata are considered as occasional factors. Kuhnt, quoted by Garfin, examined one hundred cases of dacryocystitis and found only three without nasal changes. Nine cases showed a variety of nasal diseases, sixty-eight had positive sinus disease, and twenty-three had probably sinus disease. Garfin[1] found 55 per cent of his patients with dacryocystitis had nasal pathology of varying degrees; suppuration of the anterior ethmoid sinuses was more commonly associated with dacryocystitis than suppuration of the other sinuses.

Garfin's analysis of his one hundred ten cases is as follows:

chronic rhinitis	21	atrophic rhinitis	3
trauma	5	deviation of septum	4
chronic sinusitis	57	(usually ethmoid, manifest or latent, occasionally associated with maxillary sinusitis)	
vasomotor rhinitis	2	polyposis nasi	3
syphilis of sac	2	tuberculosis of sac	1
no nasal disease	9	osteoma	1

One author, quoted by Garfin, stated that 63 per cent of his cases of dacryocystitis had sinus involvement, and another stressed the importance of suppuration of the maxillary sinus in this regard. The association of atrophic rhinitis and ozena with chronic dacryocystitis has been noted by several writers; in one series sixteen out of thirty-five cases of dacryocystitis had atrophic rhinitis and in another series one hundred and thirty-five out of three hundred and fifty-two cases.

Therefore, because of the high incidence of nasal and sinus disease in chronic dacryocystitis, because of the propinquity of the nasolacrimal duct to the nasal structures, and because the nasolacrimal duct is said to be frequently initially obstructed in the lower part of the duct, the nasal origin of nasolacrimal duct obstruction and chronic dacryocystitis has been hypothecated.

On the other hand, capable observers state that the incidence of sinusitis in chronic dacryocystitis is low, and that the nasolacrimal duct stenosis occurs most often at the junction of the sac and duct. Lyle[2] found the site of obstruction almost invariably at the upper end of the nasolacrimal duct. Few of his patients with chronic dacryocystitis showed abnormalities in the nasal cavity. Two of his twenty-six cases had an accompanying ethmoiditis. One case showed nasal polypi. In Gifford's[3] series of one hundred twenty-five cases, two showed chronic sinusitis, two cases had a deviated septum and one case exhibited nasal polyps. He considers the primary cause of dacryocystitis to be an obstructed masolacrimal duct either at the nasal or upper end of the duct. Seven of his cases were caused by trauma to the nasal and facial bones, one infected sac was diagnosed tuberculosis, two due to lymphatic leukemia and one squamous cell epithlioma.

In an investigation made in 1927, Diggle[4] found comparatively few cases of nasal abnormality or disease in one hundred and twenty cases of lacrimal obstruction, although he felt that ascending infection from the nose a more important factor than descending infection from the conjunctival sac. One hundred and two of his cases were females, the majority between thirty and sixty years of age. Injury was the chief factor in five cases (4.1 per cent). Enlarged

*Read before the Virginia Society of Ophthalmology and Otolaryngology at White Sulphur Springs, W. Va., May 8, 1950.

middle turbinate bones were found in 10 per cent, misplaced middle turbinates 3.3 per cent, deviated nasal septum 8.3 per cent, enlarged inferior turbinates 1.6 per cent, atrophic rhinitis 5.8 per cent, hypertrophic rhinitis 5 per cent, and empyema of the ethmoid sinuses 1.6 per cent. Diggle concluded from these findings that nasal deformities, abnormalities and diseases are rare in nasolacrimal stenosis and suggested that the nasal origin of lacrimal obstruction "non proven".

Some further significant facts were pointed out by Tyrrell[5] and Traquair[6]. Seventy-five to eighty per cent of all cases of dacryocystitis occur in women, generally at the time of the menopause. They feel that the endocrine, developmental, hereditary and anatomical considerations are of major importance. Traquair suggests that the sex predilection alone rules out the nasal origin of dacryocystitis. Only one of Traquair's four hundred and nine cases had intranasal pathology. He divides his cases into primary and secondary dacryocystitis. The former is the most common and has a large hereditary factor; the latter type is rare and is due to injury or disease of the neighboring parts.

Another variable finding has been the presence of pathological lesions in the region of the ostium of the nasolacrimal duct. Some authors have had success in removing anterior septal spurs, hypertrophic inferior turbinates and other lesions in the inferior meatus, while others have noted an absence of this type of lesion in their cases.

In most series trauma is stated to cause 4-5 per cent of the cases of dacryocystitis; in Hallum's[7] series it was the predisposing factor in 17 per cent. Lyle has pointed out the interesting fact that during the war the traumatic cases of chronic dacryocystitis were markedly increased.

In my small series of twenty-five cases of dacryocystitis, twenty-three (92 per cent) were females and two were males. In fifteen cases (60 per cent) the clinical and x-ray examination of the nose and sinuses was negative. Atrophic rhinitis was seen in two cases (8 per cent); in one case advanced ozena was found and in the other mild atrophy with chronic ethmoid and maxillary sinusitis. Two of the cases followed transverse fracture of the superior maxilla. There was x-ray evidence of sinusitis in six cases (24 per cent). In four of the six cases the opacity was shown to be due to a thickened ethmoid or antral mucous membrane, without suppuration, and in one case the frontal sinus was similarly involved. Of the two remaining cases one case showed a chronic suppurative maxillary sinusitis on the side opposite the dacryocystitis. The other case had bilateral dacryocystitis with a chronic bilateral hyperplastic rhinitis with polyposis and extensive maxillary and ethmoid sinusitis. The sphenoid sinus was not thought to be involved in any of these cases.

Abnormal intranasal changes were infrequently seen in this series. A deviated septum was noted in six cases, listed as minimal deviation in three instances, moderate in two cases, and marked in one case. Two cases were diagnosed chronic intumescent rhinitis. An anterior septal perforation was seen in one case. Small anterior vomer spurs were seen in three cases. The inferior turbinate and inferior meati were normal in most instances. In one case there was a bony abnormality in the anterior portion of the inferior meatus. The middle turbinate was forward placed in one case. Allergy was considered a factor in two cases.

Remarkable success has been achieved by experienced surgeons in the treatment of chronic dacryocystitis by re-establishing the drainage of tears into the nasal cavity. The external approach is usually advised and numerous techniques have been described to successfully maintain the nasal lacrimal fistula. For the rhinologist the endo nasal approach is the operation of choice. The technique advocated by Sauer is simple and successful in my experience. Regardless of the method of surgery a careful choice of cases and careful preoperative study is essential. Many surgeons conclude that dacryocystorhinostomy is indicated in all cases of purulent dacryocystitis and there are no contradictions provided the passageway from the punctum to the sac is normal. However, in the presence of an atrophic rhinitis, or advanced nasal or sinus disease, if the inferior canaliculus is destroyed, or if the nasolacrimal duct obstruction is due to tuberculosis or tumor growth, other methods of treatment should be chosen.

Stokes[8] advises correction of high deviation of the septum, resection of the anterior tip of the middle turbinate if indicated, removal of polypoid growths and correction of sinusitis before the operation is attempted. In thirty-five of his thirty-nine cases a normal nasal cavity was found, two needed a submucous

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resection, one had polyps and two had large middle turbinates.

Although controverted by some, x-ray visualization of the lacrimal sac with lipiodol is a practical routine. Demonstration of the size and position of the sac may influence the type of operation to be performed, and if economy is necessary radiographic appraisal of the sinuses can be done at the same time. This point is illustrated in the picture. Lipiodol in

X-Ray of sinuses demonstrating lipiodol visualization of right tear sac and opaque left antrum.

the left lacrimal sac is well seen; the opaque right antrum was a surprise finding.

Tyrrell thinks that lipiodol x-ray examination of the sac cavity is helpful in finding those cases with small fibrous sacs, those with large patulous sacs, or those with diverticulum of the sac, all of which do poorly after dacryocystorhinostomy, and reduced the possibility of surgical cure by 30 per cent. He also considers as unsatisfactory those cases with polypi in the sac and cases with nasal disease, especially nasal polypi. The only absolute contraindication of dacryocystorhinostomy in his opinion is the presence of a large diverticulum or a previously slit lower canaliculus.

In summary, suppurative sinusitis was present in 12 per cent of this series, in 4 per cent significant enough to contraindicate dacryocystorhinostomy. This operation was not thought to be advisable in two cases of atrophic rhinitis. Nasal abnormalities were conspicuous by their absence. Eighty-eight per cent of the cases were candidates for dacryocystorhinostomy. A submucous resection for a marked high deviation of the septum was indicated in one case, and probably would have been done in five other cases if the nasal approach to the tear sac had been used.

It can be concluded that, in spite of the fact that only a small number of cases of chronic dacryocystitis show infection or abnormalities of the nose or paranasal sinus, a thorough rhinological examination is necessary, especially if the dacryocystorhinostomy operation is considered.

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POLIOMYELITIS— REVIEW OF FIFTY-THREE ACUTE CASES OBSERVED FROM THE ORTHOPEDIC SERVICE AT UNIVERSITY OF MISSOURI HOSPITAL, COLUMBIA, MISSOURI, 1949

VIRGIL R. MAY, JR., M.D.,*
Richmond, Virginia.

Poliomyelitis is an old disease. Evidence of its severity is believed to have been present during domination of the Egyptian civilization. Withered deformed limbs of people have been seen carved on some of the ancient frescos and in early painting. It was first described in medical writings by Underwood, of London, in 1784. In 1835, John Badham reported four classic cases in children of rural England. The first clear clinical description of the disease was written by Jacob Heine in 1840 and elaborated upon by the same man in 1860.[1] The first outbreak was in Stockholm, Sweden, in 1887, at which time forty-four cases were seen. In this country the first outbreak was reported in 1891 in Louisiana by Louis Colmer. One hundred and thirty-two cases of poliomyelitis were seen in Vermont in 1894. In 1905, the epidemologic pattern of poliomyelitis was established during an epidemic of one thousand and thirty-one cases.[2]

It is generally agreed that poliomyelitis is caused by a filterable virus and this virus is easily destroyed in the laboratory. The virus does live, however, in chlorine treated water which is so high in chlorine concentration as to not be feasible for drinking.[3] At present, three immunologic types of poliomyelitis have been found. Of these three types, fourteen strains have been described.[4,5]

It may occur at all seasons of the year; however, it occurs usually during the late summer and early fall. In the south the disease usually appears earlier in the year than in the north. It also appears as sporadic endemic forms. Direct contact has long been considered essential for the transmission of the virus and is regarded by many as the most likely mode of infection. Yet in recorded epidemics, the proportion of cases in which direct contact has been established or cases occurring in room-mates, nurses and doctors in attendance is exceedingly low.[6] A fatal case was reported in which a laboratory worker handling the virus contracted the disease.[7] This is not in accordance with known contact diseases, such as measles or chickenpox. All of our cases were treated during the acute illness on the isolation ward. Just above this ward on the next floor, the crippled children were being cared for at the same time. Approximately thirty-five per cent of these children had had poliomyelitis previously. No acute case was seen among these other children.

Many persons develop a subclinical or mild undeterminable infection; in others, clinically recognizable disease is produced but few affected individuals develop paralysis. It has also been noted that the trend has been from the child to the teen age and young adult ages.[8]

Poliomyelitis virus was demonstrated in pharyngeal swabs taken from patients ill with the disease. In forty-three per cent of a series of twenty-three cases, it was noted during the first three days of disease. In no instance was the virus found after the third day of illness in thirteen cases.[9] In at least two of twenty-eight healthy children from a neighborhood playground, the virus was isolated.[10] The logical point, at which to break the chain of infection in this disease, is not by attempting to reduce exposure but to control infection by increasing immunity. The future of vaccine prophylaxis lies in increasing the knowledge of the number of virus types and their ability to produce immunity. The method of inoculation of the virus will also have to be improved. Since there have been proven second attacks in this disease in the same person, this questions the ability of vaccination, as immunity may not be lasting or the second attack may have been due to another type of strain of virus.[11] Another obstacle which would have to be overcome would be an available source of virus and complete inactivation must be established.[12, ibid. 4]

The distribution of the virus has been observed not to effect all tissues and organs of the body but is localized in the alimentary tract and central nervous

*Formerly Fellow Orthopedic Surgery, Northwestern University, Chicago, Ill.

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system. The virus is found in the tongue, pharyngeal wall, the washed walls of the small and large intestines, as well as their contents. In the central nervous system the virus is not found generally disseminated but is localized in certain specific areas. Necrosis of the nerve cells and perivascular cellular infiltration are the typical lesions.[13] Motor cells which are affected either are destroyed very quickly during the first few days of the disease or undergo slower recovery changes leading to complete morphologic recovery within about a month. After this time, it can be shown that the degree of paralysis and atrophy are closely correlated with the number of motor cells destroyed.[14] Sensitivity disturbance is exceptional. The degree of inflammatory reactions as reflected in the spinal fluid has no correlation with the seriousness of paralysis.[15]

The virus has been rarely ever demonstrated in the blood stream. One of our patients, who suffered a severe encephalitic form, had delivered a normal child two weeks prior to admission. The child has remained normal. Therefore, since the virus is believed to rarely enter the blood stream, the placenta is considered to be rarely exposed to the infection.[16] Harmon and Hayne reported a case in which virus studies on the spinal cord of a fetus of a patient who died of acute poliomyelitis were negative.[17] Other authors have reported a fatal case who was eight months pregnant. Autopsy revealed evidence of encephalomyelitis disease in the mother, as well as swelling and congestion of the anterior horn cells of the cord. The virus was demonstrated in the mother but could not be isolated in the fetus.[18]

There were a total of fifty-three cases of known poliomyelitis admitted to the University Hospital from July through October. Eleven additional cases were admitted for observation but were not diagnosed as poliomyelitis. There was a rather sudden increase in cases during the latter part of the month of October. These cases were all from the same small town. The seasonal trend of ours is shown in Table I.

TABLE I
DISTRIBUTION OF CASES BY MONTHS

July	August	September	October
20 cases	20 cases	5 cases	8 cases

The ages of the patients varied from nine days to thirty-nine years. The youngest case died and the diagnosis was definitely established from the central nervous system lesions. The thirty-nine year old patient was the only Negro admitted. She suffered a severe polioencephalitis with residual paralysis of both legs and the right arm. Brunet has shown there has been somewhat of a shift in the ages to involve the older children and young adults.[19] This has also been revealed both in Denmark and New York.[20] The ages of our patients are shown in Table II.

TABLE II
AGE INSIDENCE OF POLIOMYELITIS

Age in Years	Number of Patients
1- 4	15
5- 9	14
10-14	6
15-19	8
20-24	4
25-30	4
over 30	2

In our group of cases there were thirty-two males and twenty-one females admitted.

In making the diagnosis of this disease the physician is guided by the signs and symptoms, with which he is familiar. The final evidence in diagnosis is to demonstrate the causative organism. This is quite difficult technically in virus disease, so he must be content with less specific evidence. He first takes notice of existence of other cases, season of the year, evidence of acute infectious symptoms and signs of meningeal irritation, evidence of damage done to scattered groups of lower motor neurons of cord and medulla, lack of sensory involvement and evidence given on examination of the spinal fluid.[21]

All cases of suspected poliomyelitis were admitted to the isolation ward. The prodromal symptoms consisting of acute coryza, or gastrointestinal tract upset were present in about twenty-five per cent of the cases. The actual onset of the disease was usually marked by fever and headache. In an occasional case, the original symptoms were followed by an asymptomatic period of about three days. Then symptoms of headache, nausea, vomiting, irritability, lethargy, stiff neck and stiff back appeared. Pain in the legs, hips or arms was commonly present. Many of the patients on admission had partial or complete paralysis. In the bulbar cases symptoms beside meningeal irritation, such as difficulty in swallowing, breathing and nasal speech, were present. Sphincter disturbances were occasional complaints with constipation the rule in most cases.

The physical examination was the most important

procedure in making the picture of poliomyelitis a characteristic entity. Many of our cases were from distances over fifty miles, and on admission appeared acutely ill. Flushed appearances with oral pallor were common. Moderate hyperemia of the pharynx was the rule. The most common findings were stiff neck and stiff back with positive Kernig's sign and Hoyne's sign. Reflexes were found to be hyperactive with variations to complete abolition. Muscle tenderness was frequently elicited but in the complete flaccid muscle no tenderness was present. The diagnosis was as a rule completed in demonstration of weakness or paralysis in the various regions involved. With the weakened muscle, spasm was commonly observed.[22] Spasm was not present in the completely paralyzed muscle. This was observed particularly in the back, neck and hamstring muscles. It existed not only in the antagonists of weakened muscle, but also in the weakened muscle itself. When the strength of the voluntary contraction increased through treatment the spasticity decreased.[23]

The distribution of muscular involvement in most epidemics has been the lower limbs much more frequently than the upper limbs. In the former the quadriceps, anterior tibialis and peroneals are most frequently affected. In the latter the deltoids, triceps and biceps are affected more frequently than muscles of the fore-arm or hand. The most frequently seen reversible affections in poliomyelitis were paresis of the bladder and parts of the gastrointestinal tract. It has been suggested that this phenomena is due to involvement of their parasympathetic innervation. These organs belong to a few viscera having an intramedullary representation of their parasympathetic control.[24, ibid. 14]

Table III lists the distribution of region involved in paralysis or weakness.

TABLE III

DISTRIBUTION OF INVOLVEMENT BY REGION

Region Involved	Number of Times
Right arm	10
Left arm	8
Diaphragm	3
Intercostals	4
Right Upper Leg	14
Left Upper Leg	13
Right Lower Leg	15
Left Lower Leg	9

The individual muscles which showed weakness or paralysis most often are shown in Table IV.

TABLE IV

INDIVIDUAL MUSCLES INVOLVED

Muscles	Number of Times
Quadriceps	25
Anterior tibialis	25
Deltoids	21
Peroneals	15
Triceps	12
Biceps	11
Others	12

The diagnosis of poliomyelitis is aided by examination of the spinal fluid. This examination was not carried out in those cases in which the diagnosis was certain. The appearance of the fluid is clear and in general the white cell count ranges between fifteen and five hundred with the lymphocytes predominating. In most instances, the fluid protein is slightly increased. Sugar determination is generally normal.[25] In thirty-two cases, this examination was done. In the majority of our cases the cells found did not exceed three hundred, nor did the protein findings exceed sixty mgm. per cent in the majority of cases. The findings in our cases are listed in Table V.

TABLE V

LUMBAR PUNCTURES

Number of L. P. Examinations 32

Cells	Cases	Protein mgm. Per Cent	Cases
1- 49	10	20-29 mgm.	5
50- 99	6	30-39 mgm.	9
100-199	6	40-49 mgm.	7
200-299	6	50-59 mgm.	6
300-399	2	60-69 mgm.	2
Over 400	2	70-79 mgm.	1
		over 80 mgm.	2

Hemoglobin values were essentially normal. The white blood counts were approximately ten thousand; however, the differential counts were not revealing.

There are several types of the disease which may be classified as: abortive, non-paralytic, paralytic, and polio-encephalitis. The paralytic type includes the spinal and bulbar involvement. Abortive poliomyelitis is that type in which prodromal manifestations are present, but there is never any clinical evidence of invasion of the nervous system by the virus. This type is believed to outnumber other forms by ten to twenty times.[26]

Non-paralytic poliomyelitis is the form in which there is clinical and laboratory evidence of invasion of the central nervous system without residual pa-

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ralysis. Paralytic poliomyelitis is the type in which paralysis of muscles is present. The bulbar type denotes involvement of the pons, midbrain, and medulla.[27] Of fifty-three cases there were thirty-two paralytic and twenty-one non-paralytic cases. Of the paralytic cases there were six bulbar cases and four deaths. Death was commonest on the fourth day of disease and the result of either respiratory or circulatory failure or both was evident.[28]

There have generally been two types of treatment. The older one is sometimes referred to as the "Orthodox Concept" and the newer one the "Unorthodox Concept." The methods are designed to prevent and to correct the abnormalities which develop during the various stages of the disease. In the "orthodox concept" the treatment was limited toward giving the involved parts rest and support to minimize movement of the painful or paralyzed parts. To accomplish this, casts, splints, sandbags and pillows were used. Physical therapy was begun after the acute stage in which muscle pain, rigidity and tenderness had disappeared. In the "unorthodox or Kenny concept," the treatment is directed toward relieving spasm and incoordination.[29] We used the treatment as advocated by this method, in which hot fomentations are used. These were applied to the tender muscles by means of woolen packs. The larger joints were allowed freedom to allow motion. It is believed that alternate heating of the muscles allows for the production of muscle relaxation which, in turn, relieves pain and tenderness. Physical therapy was begun as soon as the toxic manifestation had subsided. These exercises consisted of gentle active and passive motions of the involved joints.[30] We differed from the "Kenny Concept," in that we recognized the existence of flaccid paralysis, muscle weakness, and spasm. These, we believed, were not caused by mental alienation but by definite pathological processes in the central nervous system. This has also been suggested by other authors.[31,32,33] Green and Gucker have stressed the importance of moist heat, but there are many other features of treatment more important.[34]

Since the disease is one of the central nervous system we attempted to keep the muscles in as good condition as possible to await the time when impulses could again traverse the involved nerves. Paralyzed muscles can be over-stretched if patients persist in moving them with gravity. To prevent this, foot boards and sandbags were used. After all tenderness had subsided, braces to prevent over-stretching and to give support were placed on the affected limb. No one has proved that braces have caused damage if worn under the guidance of an intelligent individual who takes them off at intervals and employs proper physiotherapy.[35]

During the toxic phase of the disease the treatment is symptomatic and palliative. Salt tablets were given all patients while receiving hot packs. The diet should be soft for the first few days but adequate in caloric and vitamin content. Fluids were given freely. Enemas were given daily. Paralysis of the bladder was treated by an indwelling catheter, caution being taken to prevent infection.

Respiratory disturbance was the most serious complication encountered. This was due to collection of mucus in the back of the throat caused by paralysis of the pharyngeal muscles, paralysis of the respiratory nucleus in the medullar and paralysis of the diaphragm and intercostal muscles.[36] The indication for placement in the respirator was severe difficulty in breathing. The pure spinal cases were fed naturally as they had no swallowing difficulties. When the swallowing was affected, intravenous, subcutaneous or rectal routes were used until normal swallowing could be re-established. Prophylactic measures against the development of pneumonia included frequent changes in position, suction and administration of penicillin.

Bulbar poliomyelitis can be divided into different groups depending upon the region of the brain attacked. By far the most frequent type of involvement is that of the cranial nerve nuclei. When the tenth nerve is involved, difficulty in swallowing and talking develops. This may lead to subsequent obstruction of the airway. These symptoms of obstruction can be prevented by constantly using suction, postural drainage and, when absolutely necessary, tracheotomy. Some cases of bulbar poliomyelitis may involve respiratory and circulatory centers. In these cases there may be respiratory and circulatory failure even in the absence of severe cranial nerve involvement. The treatment of choice is oxygen under some pressure and if the respiratory center and spinal cord are involved together, the respirator is indicated.[37] In such cases an adequate airway must be maintained. We believe tracheotomy is rarely indicated, as this procedure makes accessible to the

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suction catheter only a small additional area of the trachea and does not suffice for a patient with lower tract obstruction. Priest *et al.* reported approximately four hundred bulbar cases in which seventy-five necessitated tracheotomies. Forty-six of these died and twenty-nine lived. Seventeen were thought to be helped by this procedure.[38]

It is well established that if the bulbar case is purely central the respirator is contraindicated. The patient cannot be trained to breathe with the machine as the irregularities of his inspiration are dependent upon the irregularity of central stimulus. We believe if the chest excursions are not great enough to get a proper exchange of oxygen even with positive oxygen therapy, these patients should be placed in the respirator. Once the patient is in the respirator fifteen or twenty pounds of negative pressure is indicated at a rate from sixteen to twenty times per minute. Positive pressure should not be used as the chest will return to its deflated position passively. Weaning from the respirator is begun early.[39]

There are at present no specific drugs for the treatment of poliomyelitis. There is much argument concerning the merit of various therapeutic agents. Methods of therapy, which are efficient in the hands of some physicians, fail to produce good results in the hands of others.

We used aureomycin in eighteen of our patients. The dosage used was 250 mgm. every four hours for sixteen doses. No beneficial effects were noted in any case, such as shortening the period of toxicity or halting progression of the disease. In several cases in which this drug was administered, the patients had to have the drug discontinued because of drug toxicity. Fox reported the use of curare in thirty-four cases of poliomyelitis and subjective improvement was noted.[40] The bulbar cases did not respond. Ransahoff was very enthusiastic about the use of intocostin (curare) in a preliminary report of four cases. This was again reported in a follow-up article when the drug was used in the treatment of twenty-nine patients. He recommended discontinuance because of further lack of benefits and lack of experience with its use.[41]

It has also been reported in a series of a hundred and eleven patients with preparalytic poliomyelitis observed for approximately six months after onset, that no benefit was detectable when fifty-six of them received large doses of gamma globulin intramuscularly as compared with fifty-five alternate untreated cases. This observation further indicates that serum in any form is rather ineffective in the therapy of poliomyelitis.[42]

Fox and Sparkus in their cases of acute disease used neostigmin. This caused a partial relaxation of spastic muscle, but was neither constant nor pronounced and was characterized by irregularity.[43] Prostigmine was used in a series of twenty cases by Kabot and Knapp.[44] It was thought to be of some benefit; however, the patients continued at the same time to receive hot fomentations. Thus, no definite conclusions could be derived. Penicillin and pooled plasma have been used without effect on the course of the disease. Convalescent serum has been used in preparalytic states of polio without benefit.[45]

Benzazoline Hydrochloride (Priscoline) was used in eleven of our own cases without noticeable benefit. This drug was used in seventy-nine cases of Smith *et al.* They believe symptoms relief was obtained in all cases. They did say that their report was preliminary and further investigation was warranted.[46]

In conclusion, we believe recovery is dependent entirely upon the amount of initial damage to the central nervous system. If after a reasonable period severe paralysis persists and recovery seems to have ceased, efforts should be directed toward the development of the remaining muscles and the use of various permanent supports. More time should be spent in teaching the patient to handle himself with what he has than in trying to re-educate muscles which show no signs of recovery. The final stages of therapy consist in the use of orthopedic appliances and surgical procedures for the purpose of correcting deformities and producing stabilization.[47]

SUMMARY

A brief history of poliomyelitis is presented, as well as the epidemiology which is discussed. Fifty-three cases of acute poliomyelitis are reviewed. All these patients were admitted for treatment from July through October, 1949. There were four deaths with the youngest patient only nine days old. This was proven at autopsy.

The most prominent symptom with which the patients complained was headache. The sign which was elicited most often was stiffness of the neck and back. Paralysis was observed in approximately two-thirds of the cases.

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The clinical picture of bulbar poliomyelitis is discussed. Indications for the use of the respirator are presented. Tracheotomy is believed to be indicated rarely.

The efficacy of curare, aureomycin, priscol, prostigmine, and gamma globulin is reviewed. We used priscol and aureomycin in the treatment of some of our patients and did not find them to benefit either objectively or subjectively. The progression of the disease did not appear to be lessened by the use of these drugs.

I wish to express my indebtedness to my chief, Dr. William J. Stewart, for his excellent teaching and patience.

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1100 West Franklin Street.

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PALFIN, JEAN (1650-1730) Anatomie chirurgicale; ou Description exacte des parties du corps humain, avec des remarques utiles aux chirurgiens dans la pratique de leur art . . . nouv. ed. *Paris, Guillaume Cavelier,* 1734. 2 v. Plates. (M. L.)

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Jean Palfin (usually spelled Palfyn) was born in Courtrai in 1650. He was one of the greatest surgeons in Belgium, and was one of the inventors of the obstetrical forceps. He lived in Ghent. He demonstrated his "iron hands" to the Paris Academy in 1723, when he was in the French capital seeing his *surgical anatomy* through the press. His forceps was a two blade affair whose shanks did not cross and had no lock. An account of it is found in Heister's surgery. Palfin did not publish a description of his instrument.

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CORTONE THERAPY IN ACUTE GOUT

NATHAN BLOOM, M.D.,
and
ELAM TOONE, M.D.,
Richmond, Virginia.

Acute gout is one of the most painful maladies to afflict a human being. It is one of the oldest diseases on record. A description of it has been found as early as the fifth century B.C. in the writings of Hippocrates. Although this disease has been well known for so many years, it has only been since everyone has become interested in hypersensitivity reactions that we have developed a new concept about the problem of gout. Harkavy suggested that acute gouty arthritis and hyperuricemia could be produced by specific allergenic excitation, and in a study of three patients demonstrated that allergy as well as infection played a conspicuous role in the disease. He suggested that a gouty individual may be regarded as a potentially allergic patient whose joints constitute the major shock tissue with a coincidental uric acid diathesis.

This is a case record of an attack of acute gout treated with cortisone acetate (Cortone).

CLINICAL HISTORY

This patient is a white male, age 46, who had been in excellent health all of his life until 1937, when he developed a severe bronchial pneumonia, recovering after one month. Following this episode, the patient developed a mass in his left neck which was removed and found to be aberrant thyroid tissue. He remained in perfect health until June, 1941, when another mass was discovered in the left lobe of the thyroid gland. This was removed on June 19, 1941. The following day, the patient had swelling of the left great toe, which was acutely painful. He was treated with various symptomatic remedies, but it was not until several months had elapsed, with recurring bouts of pain and swelling in the toe, that gout was recognized. At that time a blood serum uric acid level was 4.2 mg. The patient remained on a low purine diet for a year but had several minor episodes of gouty arthritis about the toes and the ankles. During the next six years the attacks were periodic, occurring two to three times a year, mostly in the spring and summer months. They were usually associated with excessive mental effort but not related to food or drink. In May, 1947, after a throat infection, the patient developed an acute gouty arthritis involving both knees, especially the left. He remained in the hospital for two weeks, requiring aspiration of the knee joint. The uric acid was 4.8 mg., NPN 49; the remaining laboratory studies were within normal limits. Leaving the hospital, the patient was disabled for a period of seven weeks. Following this episode, he was fairly comfortable until August, 1949, when another attack involving the left knee was not too severe and the period of disability was two weeks. In all of these attacks the patient had been treated with colchicine, neocinchophen, analgesics, diet, glucose, and physiotherapy. During the attacks, the patient was always very toxic. This toxicity was associated with mental lethargy, weakness and irritability, lasting from one to three weeks. On May 8, 1950, the patient developed a cramp in his left calf muscle which appeared to be the beginning of a gouty attack. He limited his activities but continued to work. The morning of May 10, the cramp was more severe, spreading to the left knee. Blood studies were taken, which will be reported in detail. The patient was started on Cortone, taking 100 mg. at 11 A.M. and 1 P.M. He became bedridden that evening. The following day the left knee was moderately distended with fluid. He required several doses of codeine and was given 100 mg. Cortone at 3 P.M., and was then referred to the hospital.

PHYSICAL EXAMINATION

A well nourished male, lying flat in bed, complained of discomfort and swelling of his left knee. Temperature 99.6. Blood pressure 135/90. Few small tophi were palpated along the ear lobes. Eyegrounds negative. Ears, nose and throat normal. Neck negative, except for scar of old thyroid operation. Chest, lungs and heart were normal. Abdo-

From the Medical College of Virginia, Department of Medicine.

We are indebted to Dr. J. M. Carlisle, Medical Director, Merck and Co., for providing the Cortisone acetate (Cortone, Merck) used in this study.

men soft, no masses. No abnormal masses were palpated. There were several cartilaginous deposits along the tendon sheaths of the hands. The left knee was distended with fluid and acutely painful to manipulation. There were normal pulsations in all extremities. The reflexes were normal.

CLINICAL COURSE IN THE HOSPITAL

The patient was admitted to the hospital on May 12, 1950. The left knee was aspirated and 30 cc. of thick, yellow, gelatinous fluid removed. He was started on 50 mg. Cortone every eight hours. On May 13, four days after the attack, the patient did not require any further sedation. The knee swelling began disappearing, he was alert, able to move the knee, and cheerful. Since then his improvement continued very rapid and in a period of six days he was able to take a few steps, using his left leg without pain, leaving the hospital on the sixth day.

LABORATORY STUDIES

May 10, 1950: 10 A.M.—Na—140 meq/1. K—4.5 meq/1. Uric acid serum—7 mg.%. Chlorides—500 mg.% or 90 meq/1. CO_2—72.1 vol.% or 32 meq/1.

May 12, 1950:—Hbo. 14.6 grams, RBC 4,700,000, WBC 8,750, polys 82, eos. 1, lymphs. 15, monos. 2. Urine—sp. gr. 1.020, acid, one plus, albumin negative, sugar and acetone, negative sediment. Chlorides—532 mg.% or 91 meq/1. Serum uric acid—6.8. Joint fluid uric acid—6.4. Blood sugar—122. NPN—48. Flocculation—negative. Sedimentation rate (Wintrobe)—24 mm. in 60 minutes. Culture of joint fluid—negative.

May 13, 1950:—Na—132 meq/1. K—4.9. NPN—49. Blood sugar—114. Chlorides—488 mg.% or 84 meq/1. Sedimentation rate—39 mm. in 60 minutes. Serum uric acid—5.7 mg.%.

May 15, 1950—Urinalysis—acid, sp. gr. 1.024, negative albumin, sugar and sediment.

X-ray of left knee, normal.

Electrocardiogram, normal.

May 17, 1950:—CO_2—74.9 vol.% or 33 meq/1. Sedimentation rate—34 mm. in 60 minutes.

May 24, 1950:—Na—134 meq/1. Serum uric acid—4.32 mgm.%. CO_2—74 vol.% or 33 meq/1.

CORTONE THERAPY

May 10, 1950:—100 mg. at 11 A.M. and 1 P.M.

May 11, 1950:—100 mg. at 3 P.M.

May 12, 1950:— 50 mg. at 9 A. M., 4 P.M., and 12 Midnight.

May 13, 1950:— 50 mg. at 8 A. M. and 4 P.M., 100 mg. at 12 Midnight.

May 14, 1950:— 50 mg. at 8 A. M., 4 P.M., and 12 Midnight.

May 15, 1950:— 50 mg. at 8 A.M. and 8 P.M.

May 16, 1950:— 50 mg. at 8 A.M.

May 17, 1950:— 50 mg. at 8 A.M.

May 18, 1950:— 50 mg. at 8 A.M.

May 19, 1950:— 40 mg. at 8 A.M.

May 20, 1950:— 25 mg. at 8 A.M.

May 21, 1950:— 25 mg. at 8 A.M.

May 22, 1950:— 25 mg. at 8 A.M.

May 23, 1950:— 10 mg. at 8 A.M.

May 24, 1950:— 10 mg. at 8 A.M.

May 25, 1950:— 10 mg. at 8 A.M.

May 26, 1950:— 10 mg. at 8 A.M.

May 27, 1950:— None.

May 28, 1950:— None.

May 29, 1950:— 25 mg. at 8 A.M.

CLINICAL COURSE AT HOME

After returning home on May 17, 1950, the patient improved to such an extent that he was able to return to partial office work in seven days. He continued to work on a reduced schedule until May 29, 1950. On that date the left knee joint developed fluid and became exquisitely painful again. This occurred after the elimination of Cortone for a period of two days. In spite of the recurrence of activity in the left knee, it was decided to discontinue Cortone. The patient started on neocinchophen and complete bed rest, finally making an uneventful recovery after a period of two weeks.

DISCUSSION

The laboratory studies in this particular case did not show any startling changes while the patient was under the influence of Cortone. The initial studies on May 10 revealed a normal sodium and potassium, the uric acid level was elevated; the CO_2 combining was also elevated. Two days later there was a slight elevation of the blood sugar, the NPN was elevated, and the sedimentation rate showed a marked drop. On May 17, after a week in the hospital, the CO_2 combining was still elevated; the sedimentation rate had improved. On May 24, after apparently recovering, the uric acid level had returned to a high

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limit of normal; the CO_2 combining was still slightly elevated.

These studies confirm various other investigations,[2] demonstrating that Cortone in large doses over a prolonged period may cause slight elevation of the blood sugar and a tendency towards alkalosis. There were no immediate changes in the hyperuricemia, as the serum uric acid did not return to normal until two weeks following the initial administration of Cortone. The sedimentation rate also remained elevated until the initial attack had subsided.

It is most difficult to evaluate the effect of Cortone in this particular case. The patient developed a typical euphoria, which has been described by so many observers. This was probably due to either a direct effect of adrenal hormones on the central nervous system or a combination of this effect and the sedative action of Cortone. When the dosage of the drug was lessened the patient immediately complained of the usual lethargy which accompanied his previous attacks. This started when the dosage was dropped to 25 mg. daily. The euphoria was present with a dosage of 50 mg. or more daily. The immediate improvement while in the hospital was almost unbelievable, as this patient had suffered many previous attacks of gout and had been through the various phases of the disease, including the agonizing pain, irritability, depression and toxic manifestations. The disappointing aftermath, culminating in a recurrence of pain and swelling, might possibly be due to the discontinuance of the drug for two days. Most likely the recurrence was caused by the patient's returning to restricted activities too soon following his acute attack. The other possibility is that after the withdrawal of prolonged Cortone therapy there is a period of adrenal atrophy lasting from four to ten days, during which the adrenal cortex may function poorly or not at all. This period of relative adrenal cortical insufficiency may have been an ideal time for reactivation of the gouty syndrome.

We realize that we are dealing with a very unusual drug. The dosage of this drug has not been standardized; the length of time it should be administered and when the drug should be discontinued has not been established. The adverse effects on the body's metabolism is not fully understood. In fact, although many investigators are studying the effect of both ACTH and Cortone on various disorders, none are in agreement as to the exact action and the proper dosage. We believe that in our particular case the patient was greatly improved and would have made a complete recovery if he had not become active so soon. Cortone is a very powerful medication and we are sure that in a short period of time the question of dosage will be standardized and the drug will be of great assistance in the treatment of many obscure maladies such as gout.

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FOOD ALLERGY, ITS APPLICATION

MILTON MILLMAN, M. D., F.A.C.A.,
San Diego, California.

Medical practitioners must have a fundamental grasp of food allergy and its implications inasmuch as allergic manifestations mimic a great many diseases. Many physicians discount the importance of food allergy because they lack the fundamental concepts concerned in this subject and have not attempted the time-consuming methods that are sometimes necessary to elucidate the problem.

The purpose of this paper is two-fold:

1. To outline the fundamental aspects of food allergy.
2. To outline a practical approach to the problem.

DEFINITION

Rinkel[5] defines food allergens as "those foods which under correct conditions of testing, produce definite clinical manifestations. These reactions must be not only constant with repeated trial, but also must exhibit specificity."

Classification: (Modified from Rinkel)[3,6,7]

I. Fixed sensitization
   A. Minor allergens
   B. Major allergens
II. Intermittent sensitization
   A. Minor allergens
   B. Major allergens

Definition of terms:

1. Fixed sensitization[3]—a food is said to have a fixed sensitization when ingestion produces symptoms whenever it is eaten irrespective of the frequency with which it is eaten.
2. Intermittent sensitization refers to food sensitivities which are clinically evident on some occasions and are apparently innocuous at other times.

Rinkel[6,7] calls this type of food allergy "cyclic" food allergy and states that these types of "food allergies are those that become clinically evident with the use of the food and tend to disappear with omission of the food. The presence or absence of an allergic status is determined by the incidence of the food in the diet."

Cyclic sensitization may also be major in that the allergen itself may produce an allergic response or minor in that it is of such intensity that the effect is subthreshold and requires associated allergens or a lowered threshold to produce its effect. Minor sensitization is the basis of Concomitant Food Allergy.

3. Major food allergens[3] are those foods that in themselves will bring out an allergic syndrome. The allergic reaction may occur immediately, within a few minutes to a few hours, or delayed, that is, occurring in one to two days after ingestion.

One of my patients, for example, each time beets are eaten develops a typical angioneurotic edema with swelling of the face, eyelids and lips within an hour. The beets are an example of a fixed major food allergy.

4. Minor food allergens[3]—those foods causing an allergic response which is below the threshold level to produce a clinical effect. It may produce symptoms in the presence of other allergies or at times when the threshold level in the patient is lowered.

Minor food allergens are thus food allergens which produce a subclinical sensitivity and set the stage for other factors to operate. The other factors may be major allergens or minor allergens producing a synergistic effect and thereby reaching a threshold of sensitivity. Anything which would lower the patient's threshold of sensitivity may also bring minor allergens to a clinical level. In this way, emotional stimuli, fatigue, or infection might lower the threshold of sensitivity to the point where the level of stimulation of a minor allergen is now capable of producing an allergic syndrome.

5. Concomitant food allergy—This term refers to minor food allergies which are associated with other exciting agents, minor or major, and thereby bring out a clinical response.

(a) Associated with inhalant allergy, including pollens.[3,6,7]

In allergic rhinitis, bronchial asthma, and other allergic syndromes, minor food allergy is of great

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importance. There are frequent cases of seasonal hay fever or asthma in which the food allergy must be controlled in the season or the usual pollen desensitization will be to no avail. Yet, out of the pollen season the food can be eaten with impunity.

(b) Associated with psychoneurosis or emotional excitement.

One of my patients has an allergy to chicken, eggs, and other foods which bring on bouts of sneezing, watery rhinorrhea, nasal obstruction, abdominal pain, distention, and eructations. Avoidance of the foods relieves the symptoms but emotional excitement alone will bring on particularly the gastro-intestinal component. One evening she went to a cocktail lounge atop a tall building. On looking out of the window, she was suddenly frightened and within seconds had a recurrence of abdominal pain and eructations which lasted about an hour.

Psychoneurosis has a definite synergistic effect with allergy and particularly food allergy. Here there is a vicious cycle. Allergy causes nervousness which in turn aggravates the original allergy.

(c) Associated with infection.[3]

There are many instances of asthmatic bronchitis or true bronchial asthma in children which are brought on by respiratory infection or the child has frequent "colds" in the winter. Allergic control diminishes the number of "colds" and cough and abolishes the asthma. In these cases, allergic control has enabled a child, when it does have a respiratory infection, not to suffer from the asthmatic component. Food allergy here is but one part, in some cases the only part, in the allergic control.

(d) Associated with physical allergy.[6]

Physical allergy refers to allergic syndromes brought on by cold, heat, or sunlight. An uncontrolled minor food allergy or other associated allergies make these cases more difficult to treat.

(e) Associated with contact allergens.

In food allergy, particularly in allergic dermatitis, the contact sensitivities and nonspecific irritants must be removed along with the minor and major food allergens as well as other allergens.

(f) Associated with physical debility.

Anemias and malnutrition may lower the threshold of sensitivity to bring the minor allergens to a clinical level.

(g) Combinations of two or more allergens with synergistic effect.

SYMPTOMS OF FOOD ALLERGY

One of the earliest symptoms of food allergy is the neuromuscular group, that is weakness, easy fatiguability, increased tendency to sleep, poor concentration, and nervousness. This group of symptoms is frequently considered in such chronic diseases as chronic undulant fever, hypoglycemia, hypothroidism, rheumatic fever, and infectious mononucleosis.[4,5,11] But allergy is a common cause of these symptoms. Neurasthenia should not be diagnosed without excluding organic disease and food allergy. Randolph[4] states that weakness and fatigue due to food allergy are usually associated with other allergic manifestations such as allergic headaches, vasomotor rhinitis, or gastrointestinal disturbances.

Irregular fever of unknown origin can be due to food allergy, as was reported by Rowe.[10] He had a female patient 18 years of age who had a "prolonged allergic fever that was preceded by a life-long anorexia, aversion for milk, and recent colonic symptoms."

Gastro-intestinal symptoms such as nausea, vomiting, abdominal pain and distention, eructations, flatulence, and diarrhea are frequently due to food allergy.

Vasomotor rhinitis, bronchial asthma, asthmatic bronchitis, and skin manifestations are well-known results of food allergy.

Other symptoms are headaches, epileptiform convulsions, Meniere's syndrome, paroxysmal tachycardia, bursitis, lymphadenitis, arthritis, personality changes especially in children, and conjunctivitis. Localized dermatitis of the hands also has been shown at times to be due to food allergy.[9]

Rinkel[6,7] gives the following helpful criteria of food sensitization in the absence of organic disease:

1. Periodic itching of the nose or nasopharynx.
2. Exacerbation of typical symptoms which last at least two or three days.
3. Exacerbation of symptoms over and above a constant level of symptoms after a period of freedom of symptoms.

In this connection, it should be noted that symptoms of food allergy may last as long as 4 or 5 days from one ingestion of food, and that in some patients small amounts of an allergic food will bring on symptoms, while in other cases much larger amounts are necessary to bring on clinical effects. At times the

odor alone of a food is all that is necessary to cause symptoms.

CAUTION

Food allergy is an important cause of allergic syndromes, but is not in itself the sole cause of these symptoms. Inhalants, drugs, bacteria, pollen and foci of infection[2] may be at fault. Nervous or psychoneurotic manifestations, alone or in combination with various types of allergy, reproduce the different syndromes. This paper is a discussion of food allergy, but it must be clearly understood that the patient must be treated as a whole. As I pointed out in a previous paper, a complete and careful study from all angles is necessary in the handling of the allergic patient.[1]

HISTORY

The history is the most important aid in the determination of food allergy. The patient gives the leads, stating that certain foods are known to produce definite allergic manifestations. It is therefore important that a careful dietary history be taken. It is obtained, in part, in the first few interviews and later during the course of the observation. A food history should stress the following points:

1. Direct questioning as to known food idiosyncracy, or those foods which are suspects.
2. Specific questioning about known common offenders such as pork, fish, chicken, egg, milk, wheat, nuts, chocolate, potato, tomato, orange, cabbage, spinach, strawberry, and cherry.
3. Letting the patient fill out a chart[11] containing a complete list of foods, marking on this list those that definitely cause trouble, those that he suspects, and those that seem to be innocuous. This list has two main uses:
   (a) Calling attention to possible offenders which can be later followed up.
   (b) Giving a good idea of the foods that the patient eats.
4. Food diary.—A daily record kept by the patient of the foods eaten each day together with the nature and degree of symptoms for each day. Checking back, this frequently eliminates a difficult problem. The diary should also include any unusual activity for the day.

SKIN TESTS

Food skin tests are of definite value in many cases, but their value or lack of value depends on several factors.

1. Potency of extracts
2. Accuracy of testing and interpretation of the results
3. Knowledge of the limitations

When the first two points are known and accurate, food tests are indicative of allergy in only about 50 per cent of the cases.[8] A positive skin test may mean past sensitivity, present sensitivity, a potential sensitivity, or merely a skin irritation. Negative tests do not always rule out allergy to a food.

The basis of detecting food allergy is to control the symptoms, then add foods, which if responsible for allergic symptoms, will produce a demonstrable clinical effect. The skin tests play an important part in suggesting what foods to leave out initially and what foods to add later. A positive skin test in the presence of a corroborating history is of even greater significance. The skin tests must be interpreted in the light of the other findings in each case. In many of the simpler cases, however, no food tests may be necessary at all, sufficient information being obtained from the history as previously outlined, the basic or other planned diets by trial, and removal of common offenders.

BASIC DIET PRINCIPLE

A basic diet is not a liberal diet, but should be as adequate as possible in all nutritional aspects. Occasionally the basic diet is not balanced, but this should be followed for as short an interval as possible, new foods being added one at a time, concentrating first on making the diet balanced nutritionally. This diet is planned from foods which are less common offenders and must be modified depending on the history and the elimination of skin positive foods. If this gives a base line with freedom of symptoms, each new food should be added singly, twice a day if possible, and continued at least four days before it can be considered innocuous and new foods tried.

It must be remembered, in this connection, that one food may cause symptoms for four or five days and that no clinical symptoms may show at the initial servings of the food. A strict knowledge and control of the foods in the diet is essential. The method of preparation is vitally important. We frequently find patients who we believe are following the diet and who are eating the correct foods, but seasoning them with garlic, tomato, pepper, bacon, and other ingestants.

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ELIMINATION DIETS OF ROWE[8]

Rowe has established a number of elimination diets containing a detailed list of foods, sample menus, and recipes. These diets are modified depending on the history and, where indicated, skin tests. The general follow up is similar to that outlined with the basic diet principle.

SUMMARY

1. A basic allergy diet is prepared from foods that are least common offenders, modified by a history of suspected foods, and elimination of common offenders and skin positive foods.

2. A food diary, recording foods and symptoms each day together with daily events which may be of importance, is helpful in the detection of food allergies.

3. The base diet must be balanced where possible from the beginning.

4. In some cases, the analysis of food allergy is more difficult and more elaborate observation may be necessary. Changing diets and elimination of certain items may be necessary.

5. Where the base diet controls symptoms in the patient suspected of food allergy, foods are added one at a time and observed for clinical effect. Sometimes one has to go back to the base diet when confusion exists.

6. Many cases of pollen allergy require seasonal control of food allergy before a satisfactory result can be obtained.

7. The general plan in the detection of food allergies is to find out what the patient can eat as well as what he cannot eat.

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1109 Medico-Dental Building, 233 A Street.

Simple Device as Saver of Newborns.

A simple and inexpensive laboratory-made device which has proved lifesaving in the case of newborn infants with breathing difficulties is described in the October 21 J.A.M.A.

Tried in 79 cases, the instrument allows a maximum of safety and efficiency and can be used by obstetricians or anesthetists in a hospital or home, according to Dr. Ernest B. Emerson, Jr., of the department of surgery, University of Rochester School of Medicine and Dentistry, Rochester, N. Y.

"The results have been entirely successful in every case in which the respiratory distress was due to obstruction by foreign materials, such as mucus and blood," said Dr. Emerson. "In no case did complications develop from use of the apparatus itself, such as edema of the larynx and trachea or the bronchial perforation so dreaded in the infant when the more conventional metal aspirating tubes are used."

The instrument consists of a ureteral catheter with a cylinder tip, multiple openings on the sides and an oblique open end. This portion, which is inserted into the throat, is attached to a brass adapter with a suction device consisting of a rubber hose and rubber bulb. The obstructing material is removed by suction.

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Medical Society of Virginia Cancer Committee

Chairman, GEORGE COOPER, JR., M. D.

Medical School Building, University, Virginia

Reprints of this and preceeding Bulletins may be obtained from this office

February, 1951

Case Reports

A 58 year old man had suffered from asthmatic bronchitis and emphysema for many years, during which time the chest had been x-rayed repeatedly. When he was 56, the roentgenograms for the first time showed a small infiltration in the apex of the right lower lobe. Though tubercle bacilli could not be recovered from the sputum, he was admitted to a tuberculosis sanatorium. Serial x-ray studies demonstrated slow growth of the infiltration during the two year period. The sputum remained negative for tubercle bacilli and there was a steady loss of weight. He was finally referred to a hospital where tumor cells were discovered in the sputum and a bronchoscopic biopsy revealed carcinoma. At exploratory thoracotomy, the lesion appeared confined to the one lobe. A pneumonectomy was done, and the patient has remained well almost two years.

A 56 year old woman was not so fortunate. Her initial complaint was acute right subdeltoid pain. X-ray examination of the shoulder was negative. Chest x-rays were also reported negative, but on reviewing them later, a small area of infiltration in the right subapical region was discovered. At any rate, the first clinical impression was acute subdeltoid bursitis, for which the usual treatment, including roentgen therapy, was administered. The subdeltoid pain fluctuated for the next three months, after which the clinical picture was altered by the appearance of c o u g h, hemoptysis, and weight loss. A second roentgen examination of the chest revealed partial atelectasis of the right upper lobe and a right hilar mass. Papanicolaou smears of the sputum and bronchoscopic biopsy were positive for carcinoma. Exploratory thoracotomy was performed at once, but the pulmonary artery was so involved in the hilar tumor that pneumonectomy was impossible. The patient died a few months later.

Comment: 1. Roentgen demonstration of a pulmonary abnormality, the cause of which is not immediately discovered, makes bronchogenic carcinoma the foremost diagnostic consideration. The human and economic waste of having the first patient spend two years in a tuberculosis sanatorium was due to failure (a) to think of cancer as a diagnostic possibility and (b) to reconsider the initial clinical impression.

2. The failure of the physicians involved in the second case to detect the obscure finding in the first chest x-rays cannot be justly criticized. Every honest physician will admit to similar oversights. The case is reported lest the first history, in which an operable lesion was found after a two year delay, give a false impression of the average rate of spread of pulmonary cancer. Usually the physician has only a very few weeks in which to arrive at the correct diagnosis if he is to give the thoracic surgeon a chance to save his patient's life.

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CORRESPONDENCE

A World That Works

"Doctors needed on a world front". December 7th, 1950 has many of the characteristics of December 7th, 1941, but we have had nine years to profit by our former mistake. A mighty force is again arrayed against us, the forces of appeasement are attacking our flanks and all the promptings of a thousand different suggestions are upsetting our minds. When war was declared in 1941 it was a relief, we had a sense of reality, a sense of unity. I believe we can get that answer to-day. Our founding fathers had it and it is our American heritage. It comes from the rightness of our cause and the determination and hardihood to see it through.

There is a double meaning to the phrase a world that works. There can be no true health unless there is work and its concomitant rest. But when we look closely at a world that teeters on the brink of World War III we begin to see the forgotten factor. Americans can defeat Communism if they remember America was founded on a spiritual basis.

"Virginia Assembly, 1619. . . ." "But for as much as man's affairs do little prosper where God's service is neglected, all the Burgesses took their places in the choir till a prayer was said by Mr. Bucke, the Minister that it would please God to guide and sanctify all our proceedings to His own glory and the good of this Plantation. . . ."

Again 150 years later, George Washington, to the General Assembly of Rhode Island, April 3, 1797 . . . "without the beneficent interposition of the Supreme Ruler of the Universe we could not have reached the distinguished situation which we have attained with such unprecedented rapidity."

Here was an addition that the Spartans with their ideal state missed. There is a certain piousness to the use of God's name at which the third Commandment strikes, unless we are willing as we use his name to morally rearm ourselves on the basis of absolute standards of Honesty, Purity, Unselfishness and Love.

The key to victory is a healthy nation, but health is impossible unless we team on an even larger basis than keeping America healthy. There will be no health for America in a sick world. The pulse of the world tells us something is wrong. Frankly we must have a way of life as simple as our American heritage that everyone can profess allegiance to before we release the tensions that make us neurotic.

The medical profession is a great body. I am proud in my association with these men and women. They have found, it is not socialized medicine they are fighting, not President Truman's brain child, or a plank in the Democratic platform. England has it, Socialism has used it for decades. It is a world force at war against our civilization, the sooner we realize it the better. We cannot go off to battle alone, amateur recruits without weapons or plans against trained leaders in a brand new school of social warfare.

The greatest strength of an army lies in coordinated team work and knowing why we are fighting. Our profession can set a pattern for a world that works just as we have in W.H.O. for the United Nations. Our successes so far do not lie in our own strength. There are selfish interests in medicine today that would have never succeeded in preventing the pouring of billions down the gullet of a welfare state. Our successes lie in the fact that we are beginning to find out "In God We Trust" is not a catch word phrase but it is what we as individuals, as a profession, as a nation live by. It differentiates us from the Godless ideologies of the "isms". On that basis health, the common denominator of nations, can prove to be the uniting link in the ideologies of democracies under God all over the world.

WILL E. CHAPIN, M.D.
Richmond, Virginia.

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MEDICAL SOCIETY OF VIRGINIA

PROCEEDINGS

1950 ANNUAL MEETING

Roanoke

October 8, 9, 10, 11, 1950

COUNCIL

The Council was called to order by Dr. W. C. Caudill, President. All members were present with the exception of Dr. Guy Horsley. Invited and present were Dr. Harry Warthen, Jr., Dr. J. M. Emmett, and Dr. Walter B. Martin.

The budget for the coming year was presented by Dr. W. A. Porter, who commented upon the various items. The budget of $66,515 was adopted.

Dr. Emmett then reported the activities of the Housing Committee, of which Dr. Warthen is Chairman. Dr. Emmett explained that the present quarters of the Medical Society of Virginia are not adequate, and that the Committee had made every effort to locate suitable quarters in the area of the Medical College of Virginia and the Richmond Academy of Medicine. It was felt that a building at 1105 West Franklin met all requirements. The price of $26,500 was not considered unreasonable. Dr. Emmett went on to say that although the Committee had the authority to authorize the purchase, it did not wish to exercise such at that time.

It was pointed out that the Richmond Zoning Board had declined to allow the house to be used for Medical Society purposes. However, all indications pointed to an early reversal of the ruling, especially since there was no public objection. The Committee requested permission to sign the necessary contract if all obstacles were eliminated.

After some discussion concerning the heating system and rental potentialities, it was moved by Dr. Harrell and seconded that the Committee be authorized to sign the contract. Dr. Warthen asked that the motion be amended to allow the Committee to continue its search, if the proposed purchase did not materialize. It was Dr. Caudill's opinion that perhaps the House of Delegates should be asked to approve the proposed transaction. The motion of Dr. Harrell was then passed.

Some concern was expressed by Dr. Emmett and Dr. King over the possibility of the Committee investigating other locations and then waiting for the Council to meet again. Dr. Walter P. Adams, Norfolk, therefore moved that the Housing Committee and the Executive Committee of Council be granted authority to act in the future if it should prove necessary. The motion was seconded and passed.

Dr. Emmett, Chairman of the State Procurement and Assignment Committee, then reported that committee's activities. He emphasized that the Committee served merely in an advisory capacity. No detailed instructions had been received from the Government, and a "proceed carefully" attitude had been adopted.

An invitation to address the Council was extended Dr. Walter B. Martin, member of the A.M.A. Board of Trustees. Dr. Martin expressed deep concern over the failure of the Virginia physicians to pay their A.M.A. dues. He brought out the fact that Virginia was faced with the prospect of losing one or two delegates to A.M.A. Only 35 per cent of the state membership had paid as of October 1, 1950.

In this connection, Dr. Archer moved that the Medical Society of Virginia go on record as recommending that every effort be made to collect A.M.A. dues. The motion was seconded and passed.

Mr. Johnson explained that secretaries of local societies were notified in January of the proper procedure for collecting A.M.A. dues. Dr. Hundley then moved that another letter be sent the component societies, insisting upon and outlining the proper procedure for payment of 1950 A.M.A. dues, and that Dr. Martin be requested to address the House of Delegates. Dr. Adams asked that the motion be amended to request local secretaries to read the letter before the local membership. The motion was then seconded and passed.

The report of the Committee on Blood Banks was presented by Dr. Hundley. It was moved, and seconded, that the report be adopted, and the motion passed.

Dr. Caudill then invited Mr. W. L. Painter, State Department of Welfare, to address the Council. Mr. Painter acquainted Council members with a new provision for federal aid to those totally and permanently disabled. It was anticipated that aid and advice from the medical profession would be needed, and Mr. Painter expressed the hope that the Council might be of some help in this respect.

Mr. Corbett Reedy, Supervisor of Vocational Rehabilitation, commended the Committee on Rehabilitation and endorsed Mr. Painter's request for help.

Dr. M. Pierce Rucker, Editor of the VIRGINIA MEDICAL MONTHLY, expressed his desire to have Dr. Ennion S. Williams continue as Assistant Editor. He also sought the advice of Council concerning the use of the front cover for advertising purposes.

A motion was made and seconded that Dr. Williams be reappointed as Assistant Editor of the *Journal*. This promptly passed.

At this point Dr. Roper read a letter from Dr. George Cooper, Jr., which was of some concern to the Depart-

ment of Clinical and Medical Education. The Cancer Committee desired that someone visit various communities, societies, etc., and felt that such a program should be sponsored by the Medical Society of Virginia. The Committee also felt that the Society should bear ten per cent of the cost. It was requested that the Committee on Clinical and Medical Education be authorized to proceed with such a project.

Dr. Rucker moved that such a project, without financial assistance, be endorsed by the Society. The motion was seconded and passed.

Dr. Caudill asked if members of the A.M.A. House of Delegates should not have the privilege of the floor in the House of Delegates of the Medical Society of Virginia, without the privilege of voting. The Constitution was read, and there was indication that the By-Laws would have to be changed before such a practice could be observed. It was decided to bring the matter up in the House of Delegates.

A proposal was made by Dr. Archer that committees be required to meet immediately before a Council meeting at least once a year. The consensus of opinion was that such a plan would not prove practical.

Dr. Archer then requested the advice of legal counsel concerning the liability of a local medical society and grievance committee in case action should be taken as a result of any decision the committee might make.

Following a final roll call, the meeting was adjourned.

HOUSE OF DELEGATES

(Although verbatim minutes, in so far as the court reporter could get them, are in our records, this condensation is offered with the hope that the membership can know of the salient topics discussed at our House of Delegates meeting in October.)

First Session

The House of Delegates of the Medical Society of Virginia met in the Hotel Roanoke Ballroom, Roanoke, Virginia, October 8, 1950, and was called to order at 8:10 p.m., by Dr. W. C. Caudill, President of the Society.

Dr. Caudill gave a brief explanation of the new system of identifying members of the House of Delegates through the use of buttons, with the expectation that business would be conducted more easily and efficiently.

The roll was called by Mr. Henry S. Johnson, Executive Secretary-Treasurer, and a quorum found to be present.

The minutes of the 1949 meeting were approved and passed without discussion.

Dr. Walter A. Porter presented the budget and commented briefly upon the various items. The total budget of $66,515 was unanimously adopted.

The question of A.M.A. dues was discussed by Dr. Walter B. Martin, Norfolk, member of the Board of Trustees of A.M.A. Stating that only 35 per cent of Virginia's physicians had paid their dues as of October 1, he cited A.M.A.'s fight against socialized medicine and also their numerous bureaus and services maintained for the progress of medicine and the benefit of the individual physician. All members of the Medical Society of Virginia were implored to pay their A.M.A. dues immediately.

The House next heard Dr. John M. Emmett, Clifton Forge, report on the work and progress of the Housing Committee in its search for permanent and adequate quarters for the Medical Society of Virginia. It was felt that a house at 1105 West Franklin Street, Richmond, answered the needs of the Society, and it would be a reasonable purchase at $26,500. The report of the Committee was approved unanimously.

Dr. Emmett then gave a report of the Committee on Procurement and Assignment. It was pointed out that very little information had been received from Washington, but that the Committee was ready to carry out any instructions. In this connection, Dr. Martin explained A.M.A.'s part in the so-called doctor-draft law, telling why the law was written, and how it should protect communities faced with serious doctor shortage. Considerable interest was evidenced, and the matter was discussed freely.

Dr. Caudill called for reports of delegates to special meetings and events and then introduced several distinguished visitors.

Next on the agenda were reports of standing and special committees. It was pointed out that since the reports were published in the September issue of the *Journal*, they would not be read unless the Committee chairmen wished to make any additions or comments.

Dr. J. Morrison Hutcheson, Chairman of the Judicial Committee, brought out the fact that at the last meeting of the House of Delegates, a special committee, headed by Dr. H. B. Mulholland, reported upon revision procedure in the House. The report was referred to the Judicial Committee, who found no conflict with the By-Laws, and recommended the report. It was moved that the report be adopted. The motion provoked considerable discussion, until it was determined that it did not change the Constitution but merely paved the way if a change were in order. The motion of adoption was then passed.

The various committee reports continued, and Dr. T. J. Tudor, Chairman of the Committee on Industrial Health, expressed concern over the difficulty experienced by persons approaching 65 years of age in locating employment. It was felt that some attention should be given this problem.

A proposal was made by Dr. C. Lydon Harrell, President-Elect, to amend the By-Laws in order that Society members who are officers of A.M.A. or members of the A.M.A. House of Delegates might sit with the House of Delegates of the Medical Society of Virginia and speak on any matters of the day.

Dr. Caudill next called for those reports not previously published. The last report was that of the Committee

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to Confer with the Old Dominion Medical Society, and was presented by Dr. Vincent W. Archer, Chairman.

Dr. Archer outlined his Committee's views on the question of admitting colored physicians into the Society, and submitted a resolution providing that the word "white" be deleted from the Constitution.

It was moved and seconded that Dr. Archer's report be approved, and the question was then thrown open for discussion. Arguments were heard pro and con, and it was deemed wise to declare the House in executive session. The final vote was 53-30 in favor of adoption, but the motion was lost inasmuch as a two-thirds vote is required on any constitutional amendment.

Attention was then called to the matter of selecting a nominating committee, and arranging for the election of councilors from even-numbered districts. Dr. Caudill appointed a chairman from among the delegates of each district, who in turn met with the delegates of their respective districts, and selected one member for the nominating committee.

The nominating committee, as reported, was read, and the House of Delegates adjourned for the evening.

HOUSE OF DELEGATES

Second Session

The House of Delegates of the Medical Society of Virginia reconvened in the Hotel Roanoke on Monday, October 9, 1950, and was called to order at 2:15 p.m. by President Caudill.

Unfinished business was the first order of the day, and Dr. Caudill immediately called for those committee reports not made during the previous session.

The Nominating Committee report was given by Dr. Guy R. Fisher, who announced the nominees for Council and also those for the State Board of Medical Examiners. It was moved and seconded that the report be accepted. It carried unanimously.

Next on the agenda was the matter of electing a delegate to A.M.A., since Dr. Hutcheson's term was expiring. A motion was made and seconded that Dr. Hutcheson be reelected. This also passed unanimously.

Dr. Carrington Williams, Richmond, was nominated alternate-delegate to A.M.A. The nomination was seconded and Dr. Williams was elected by acclamation.

The Chair then recognized Dr. H. B. Mulholland, who introduced a resolution by which the Medical Society of Virginia would go on record as opposing "The entrance of the American Hospital Association into any part of the hospital inspection field that concerns professional qualifications or standards". It further resolved that the Society "recommends joint action and direction of a single inspection service of hospitals by such interested groups as the A.M.A., the College of Surgeons and the College of Physicians. It was recommended that the matter be brought to the attention of each component medical society and that copies of the resolutions be sent to all organizations concerned.

It was moved and seconded that the resolution be adopted, and the motion carried unanimously.

Dr. Harrell then moved that a committee be appointed to follow through on the above resolution. The motion was seconded and passed.

Mr. Johnson followed with a resolution to amend the By-Laws as proposed by Dr. Harrell. The amendment would allow members of the Medical Society of Virginia, who are delegates to A.M.A., to sit with the House of Delegates of the Society and enjoy the privileges of the floor. Dr. Harrell moved that the resolution be adopted, and his motion was seconded and passed unanimously.

The Chair next recognized Dr. M. S. Fitchett, Norfolk, representing the Second District, who moved that the Society, through its Legislative Committee, make an effort during the next Legislature to have the Medical Practice Act of 1944 changed. The proposed changes concerned graduates of unapproved medical schools, and the desire to delete all provisions pertaining to Chiropractors and Naturopaths.

The motion was seconded and opened for discussion. A substitute motion was offered by Dr. T. Dewey Davis, Richmond, which would refer the matter to the Legislative Committee. An amendment to this motion called for the Legislative Committee to report to the House of Delegates at its next meeting. The motion was seconded and adopted.

A resolution was then read by Dr. Hutcheson, recommending that the Medical Society of Virginia go on record as "supporting the position of the A.M.A. with regard to legislation for federal aid to medical education." It was moved and seconded that the resolution be adopted. The motion carried unanimously.

Dr. Edward E. Haddock, Richmond, introduced a resolution by which a nominating committee would be named from the membership of the Virginia Academy of General Practice to submit at least two names of eligible candidates for the title of "General Practitioner of the year in Virginia". Dr. Haddock moved that the resolution be adopted. It was promptly seconded and passed unanimously.

A motion was made by Dr. John T. T. Hundley, Lynchburg, whereby the Medical Society of Virginia would invite members of the Old Dominion Medical Society to attend regularly scheduled scientific sessions of the Medical Society of Virginia, when held at a location permitting the attendance of mixed racial groups. Arrangements would also be made whereby articles submitted by members of the Old Dominion Society would be published in the VIRGINIA MEDICAL MONTHLY "if and as merited." The motion was seconded and passed.

A resolution which would protect the physician who had served previously in the Armed Forces no matter in what capacity (other than an educational program) was introduced by Dr. Nelson. It was moved and seconded

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that the resolution be adopted. The motion carried unanimously.

Dr. John O. Boyd, Jr., offered a resolution which would instruct the Committee on Medical Service of the Medical Society of Virginia to seek standardization of pre-payment health and hospital insurance policies in Virginia and also direct the Committee to make specific recommendations regarding minimum standards for such policies in its 1951 report. It was moved and seconded that the resolution be adopted, and after some discussion, the motion carried.

Another resolution was then presented by Dr. Boyd by which the House of Delegates of the Medical Society of Virginia would stress the importance of the District and Regional Councilors making sure information received from standing committees would be made known to local committees and local medical societies concerned. It was moved and seconded that the resolution be adopted. The motion carried unanimously.

Dr. Boyd followed with another resolution which would authorize the Chairman of the Medical Service Committee to appoint such sub-committees he deemed necessary to investigate, discuss, and make recommendations regarding any problems which concerned the Committee. The resolution would also have the Chairman appoint these men from the membership of the Medical Society of Virginia, subject to the approval of the President of the Medical Society of Virginia. The resolution was adopted unanimously.

A fourth resolution by Dr. Boyd concerned the advisability of standing committees of the Medical Society of Virginia holding their meetings in different sections of the state in so far as possible. Notice of the meetings would be made in advance, and any interested individuals invited to attend. The motion carried unanimously.

Invitations were extended the Medical Society of Virginia by the Norfolk County Medical Society and the Princess Anne Medical Society to hold the 1951 convention in their locale (Norfolk and Virginia Beach). It was moved and seconded that the invitation be accepted, and the motion carried.

Dr. Vincent W. Archer moved that the convention be held the second week in October, 1951. The motion was seconded and carried unanimously.

Dr. John A. Sims, Alexandria, moved that a rising vote of thanks be given the Roanoke Academy of Medicine and Hotel Roanoke for their cooperation and hospitality. It was also suggested that a resolution of thanks be written the Hotel and Local Society. An amendment was offered by Dr. Harrell, including Dr. George S. Hurt, Chairman of Local Arrangements, in the motion. This was accepted. The members of the House of Delegates then rose and applauded.

Dr. Caudill thanked the members for their cooperation and adjourned the session at 3:40 p.m.

COUNCIL

Post-Convention Session

The second Council meeting during the annual Convention was held on Wednesday, October 11, 1950, in the Hotel Roanoke. The meeting was called to order promptly at noon.

It was indicated by Dr. Harrell, President, that Dr. Adams would be chairman of the Executive Committee.

The matter of A.M.A. dues was discussed, and it was moved by Dr. King that Dr. Harrell prepare a letter on the subject. The motion was seconded and passed.

It was brought to the attention of Council that Dr. Caudill had been designated by the Virginia Council on Health and Medical Care as chairman of a committee to study hospital improvement. The Committee had been exploring the possibilities of helping the colored doctor, especially with regard to hospital training. Dr. Harrell thought the matter could be referred to the Department of Clinical and Medical Education.

A motion was introduced by Dr. Hundley whereby the chairman of the Scientific Committee would write A.M.A., stating that Scientific Exhibits at the Medical Society of Virginia Convention were excellent and would most certainly deserve recognition at the A.M.A. Convention.

Dr. King commended the Credentials Committee for their part in expediting business during sessions of the House of Delegates. It was further suggested that even more streamlining might be in order.

The question of room reservations at the Cavalier Hotel for the 1951 convention was raised, and Dr. Harrell voiced the opinion that the hotel should be requested to make no reservations for the Medical Society except as they cleared through the local committee on arrangements.

Dr. Harrell and Dr. Adams felt that the matter of exhibit prizes should be determined by the exhibitors themselves, and suggested a poll be taken in order to learn their feelings in the matter.

It was the opinion of Dr. Bell that members of the District Council should be appointees to the House of Delegates of the Society. The Council suggested that the component societies consider appointing the District Councilor to the House of Delegates whenever possible.

Mr. Johnson mentioned the possibility of having a small booth at the 1951 convention, to serve as a combination executive office headquarters and information desk. Dr. Hurt thought such a booth would be of great value.

Mention was made of an editorial published in a Roanoke paper, and it was suggested that it be reprinted in the VIRGINIA MEDICAL MONTHLY. The editorial commended the manner in which certain problems were handled in the House of Delegates.

Dr. Harrell named his Executive and Scientific Committees, and since no further new business was forthcoming, the meeting was adjourned.

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THE MEDICAL SOCIETY OF VIRGINIA

PUBLIC RELATIONS

The State-Wide Public Relations Conference

The annual state-wide Public Relations Conference of the Medical Society of Virginia was held Friday, December 15, 1950, in the Roof Garden of Richmond's Hotel John Marshall.

Woven about the theme "The Practice of the Art of Medicine", the program featured addresses by Virginia's famed historian, Dr. Douglas S. Freeman, and the well-known author and news analyst from Raleigh, Mr. W. E. Debnam.

The seventy members attending entered into spirited discussion of problems of the day, ably led by two panels, each composed of a chairman and four members.

The morning panel, headed by Dr. Benjamin W. Rawles, Jr., Richmond, discussed "The Patient and the Doctor". The thought prevailed that a physician has a real civic, social and personal responsibility to his community and his patient. Of especial interest was the discussion concerning the necessity for some system whereby night and emergency calls would always be answered. The consensus seemed to be that since each locality had its own particular problems, it remained the responsibility of each community to establish a call system suitable to its needs.

The advisability of establishing a maximum fee schedule was brought up, and the question provoked considerable comment. The majority apparently felt that some type of control was advisable.

The afternoon panel, directed by Dr. John T. T. Hundley, Lynchburg, sought "A Workable Public Relations Program on the Local Level". The doctors displayed an eagerness to develop a constructive and progressive program to carry back to their local medical societies.

MENTAL HEALTH

JOSEPH E. BARRETT, M.D.,

Commissioner, Department of Mental Hygiene and Hospitals.

Treatment of the "Problem Child"*

In this country as well as elsewhere in the world the psychiatric treatment of children was comparatively unknown until the past twenty years. These two decades saw the development of the child guidance clinic as an American institution designed to meet the peculiar needs of therapeutic work with the troubled child.

In the evolution of the child guidance clinic with its unique structure and concept for working with emotional problems in childhood there came into being several developments which not only have contributed in great measure to the success of the child guidance concept of treatment of children but which also spread into many other areas of psychiatric practice. The psychiatric clinical team, for example, was first developed in the child guidance clinic. Here the team concept meets the need for a combined psychiatric, social work, and psychological approach to the difficulties of the individual child, a need arising from the conclusion that help for the child having problems in living involves working with his concept of himself as a person, with his parents who have contributed so much to that concept, and with his intellectual and emotional resources.

It is not easy for the troubled child to move into a meaningful therapeutic relationship with an adult about whom he has certain misgivings as a result of his parent's attitudes concerning his need to come to the clinic. It is, therefore, of great importance that

*Article prepared by Thomas A. Harris, M. D., Director of the Fairfax County Child Guidance Center, Falls Church, Virginia.

a sympathetic and understanding relationship experience is offered the child as he enters the child guidance clinic for help. To smooth his path to the clinic and to sensitize him to the significance of the experience, discussions between parent and child as to the "Why" and "What for" of their coming are necessary. The parent's initial interview with the social work member of the team is directed not only to helping him clarify his own feelings about the problem, but also to interpreting to him the understandings underlying clinic function. This latter step is necessary to assure the kind of parental insight which will result in the proper preparation of the child for his part in subsequent visits when both parent and child come together. Involved is a recognition by the parent that the child's problem is usually an expression of his difficulty in interpreting and handling his social realities—an expression of conflict between his personal needs and the demands others make on him.

Quite frequently the parent sees the problem as residing exclusively within the child's own personality structure rather than in the constellation or relationships in the family. In such instances, the social worker helps the parent to see his part both in the origin of the child's problem and in the process leading to its successful resolution. The understanding thus gained provides the parent with the necessary support and feeling to impart to the child a positive awareness of the meaning and significance of his anticipated clinic experience.

The child's first relationship experience at the clinic is with the clinical psychologist, who is interested in the emotional and intellectual resources which this child brings to the clinic. The clinical psychologist handles this initial contact between child and clinic with sympathetic understanding and acceptance for all that he brings. The child is encouraged to ask questions and is otherwise helped to express his feelings in connection with this first step of what may prove to be a really significant experience in his life. The psychologist's recorded observations and test results form a vital part of the case history upon which the psychiatrist and other members of the clinic staff base their decisions with regard to the nature of the child's problem and the helping procedures to be used.

Regardless of the nature of his problem the child approaches his first meeting with the psychiatrist with mixed feelings. A great deal of apprehension is nearly always present as an expression of his uncertainty and helplessness and as a reflection of the feelings in the family with regard to his problem. Many times he is struggling with a painful assumption that he is all bad with the implication that everything he does is rejected by those persons most significant in his life. Depending upon the nature of his preparation for this first interview with the psychiatrist, he may be loaded with guilt feelings over the trouble he has caused his parents. Always there is some resentment and hostility as a result of the accumulating frustrations associated with his problems.

To his part in the experience he is sharing with the child, the psychiatrist brings a keen sensitivity to the child's feelings. He is not only sensitive to these feelings but he stands ready to use his trained adult mind to help the child to express them fully for, until they are expressed, they stand as a barrier to any effective participation by the child in the clinic experience. In the presence of sympathetic interest in and acceptance of his feelings, the child finds himself free to respond to this adult encouragement and support of his participation in the relationship. He finds early in this relationship with an adult an active interest in his ideas and desires rather than the authoritative talking-down-to he had expected. As time progresses and he feels encouraged to let himself really into the hour, he finds his questions answered in a way that acknowledges his right to know all of the meaning of this particular experience. The child finds this particular adult deeply interested in his interpretation of why he has come to the clinic, while at the same time he is understanding if the child is unable to put this into words. The key to this situation is the lack of any need on the part of the psychiatrist for the child to be other than he is, and out of the sense of being liked and accepted, comes the child's freedom to change.

In the hours that follow at the clinic, the psychiatrist and the child are engaged in an examination of the child's ideas about himself and the world that surrounds him. This is not ordinarily an intellectual process but proceeds through the media of activities which fill the hours, activities in which the child is given every opportunity to express himself in his own way. Certain hours will be filled with manipulative play with toys; others, with painting

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and drawing—all of which communicate the inner world of the child to the trained eye and ear of the psychiatrist. The psychiatrist in return constantly seeks to translate the child's expressions into words. He attempts to verbalize the meaning of the child's various activities and to give fuller expression to the child's feelings through constant acceptance and support of his activities. The psychiatrist's explanations relate the child's activities to his need for change. This change may involve the giving up of out-moded and immature patterns of relating to others or of a disturbing pattern of behavior. If the problem for which he was brought to the clinic is lying, stealing, or some other form of socially unacceptable behavior, he comes to recognize the need to which that particular behavior is a response, and to learn more acceptable and satisfying ways of meeting this need.

During his hours in the clinic the child has participated in an experience which can serve as a pattern for more satisfying relationships with his parents and others. For this experience to be truly helpful, and indeed to prevent its being actually harmful, the child must receive constant support in his efforts to modify his behavior in his everyday life. It is through their simultaneous relationship with the social worker that the parents gain that insight into their child's behavior and appreciation of the need for greater acceptance and recognition of his individuality which makes it possible for them, too, to change and in changing to encourage the child in his attempts to deal adequately and acceptably with his problems.

The child, as he develops in relation to the realities of home, school, and community needs and relies upon the strength and understanding of the adult to provide him with the opportunity for the constructive use of his aggressive self-definition. At the same time, he feels his inadequacy to cope with the greater strength of the parents with the resulting need to erect his own defenses against them. Some of these defense behavior reactions are expressed in the day-to-day interchange between parent and child. These aggressive behavior reactions are the expressions of an expanding individuality with great potentials for creative achievement where the situation is not seen as a twig to be bent or clay to be molded by the will of others.

We are living in a time of great social change in which there is an increasing consciousness everywhere of the rights of the governed to participate in their government and for the individual to greater self-determination. The rights and dignity of the individual person is an increasing cultural concern of many nations. The extension of this spirit into the home is reflected in the growing interest in, and requests by parents for help in the more effective definition of their roles. The problems of maintaining wise controls, of sharing and of constructive permissiveness for the freedom loving child is a difficult one for modern parents in the face of shifting social values of the past three decades. In the actual day-to-day setting, these problems may be expressed in the child's "fresh talk" and his "I hate you" or "you don't love me anymore". Where the parent can achieve a balance between aggressive feelings that need expression and aggressive demands which frighten even the child, the constructive possibilities in this critical interpersonal situation will prevail.

The unique interpersonal experience the parent and child will find at the child guidance clinic will outline and stress the positive aspects of the parent-child relationship for a happier, emotionally healthy child and a more satisfying role of parent.

BOOK ANNOUNCEMENTS

The Development of Gynaecological Surgery and Instruments. A Comprehensive Review of the Evolution of Surgery and Surgical Instruments for the Treatment of Female Diseases from the Hippocratic Age to the Antiseptic Period. By JAMES V. RICCI, A.B., M.D., Clinical Professor of Gynaecology and Obstetrics, New York Medical College; Director of Gynaecology, City Hospital, New York; etc. Philadelphia, The Blakiston Company. 1950. ix-594 pages. Illustrated. Cloth.

The Cystocele in America. A Critical Analysis of the American Literature on Cystocele and Prolapse. By JAMES V. RICCI, M.D., Clinical Professor of Gynaecology and Obstetrics, New York Medical College; Attending Gynaecologist, City Hospital, New York; Consultant in Gynaecology and Obstetrics, Beekman-Downtown Hospital; Director of Gynaecology and Obstetrics, Columbus Hospital. The Blakiston Company, Philadelphia. 1950. xi-435 pages. Cloth.

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Diagnosis in Gynaecology. A Classification of Gynaecological Diseases Based on Aetiology and the Clinical Logic for Diagnosis. By JAMES V. RICCI, A.B., M.D., Clinical Professor of Gynaecology and Obstetrics, New York Medical College; Director of Gynaecology, City Hospital, New York; etc. Philadelphia, The Blakiston Company. 1950. x-259 pages. Cloth.

Natural Childbirth. A Manual for Expectant Parents. By FREDERICK W. GOODRICH, JR., M.D. Prentice-Hall, Inc., New York. 1950. xii-176 pages. Illustrated. Cloth. Price $2.95.

Physician to the World. The Life of General William C. Gorgas. By JOHN M. GIBSON. Duke University Press, Durham, N. C. 1950. ix-315 pages. Illustrated. Cloth. Price $4.50.

When Minds Go Wrong. A Simple Story of the Mentally Ill—Past, Present and Future. By JOHN MAURICE GRIMES, M.D., Chicago, Illinois. First Edition. Illustrations by K. Alexandria White. Published and Printed by the Author. 1949. 237 pages. Cloth. Price $5.00.

Color Atlas of Pathology. Hematopoietic System; Reticulo-Endothelial System; Respiratory Tract; Cardiovascular System; Liver; Alimentary Tract; Kidney and Urinary Tract; Musculoskeletal System. Prepared under the auspices of the U. S. Naval Medical School of the National Naval Medical Center, Bethesda, Maryland. Philadelphia, J. B. Lippincott Company. 1950. xi-546 pages. Illustrated with 1053 figures in color on 365 plates. Cloth. Price $20.00.

The Rhesus Danger: Its Medical, Moral and Legal Aspects. R. N. C. McCURDY, M.D., Ch.B., D.P.H. London; William Heinemann, Ltd. 1950. 138 pp. Price 5 shillings.

This little book apparently contains about everything that can be said about the rhesus factor in our present state of knowledge. The author himself has lost two children from erythroblastosis fetalis, as we prefer to call it in this country.

The book is divided into two parts, medical and sociological. Both parts are written in plain simple language that should be appreciated by both the lay and medical public. He begins with an excellent description of Mendelian laws and blood groups with an interesting history of the development of our knowledge in these fields. There are at least 120 different types of Rh blood grouping and to account for these mathematically, three dominant genes, C, D and E and three recessive Rh genes c, d and e have had to be invented. Experiments have been performed on men and upon women past the menopause to see how readily they may be sensitized to the Rh factors. One drop of Rh positive blood will produce antibodies in 50 per cent of the cases. On the other hand repeated transfusions fail to produce sensitivity in a few persons. The actual frequency of haemolytic disease varies from about 1 to 150 deliveries to 1 to 200. The infants with the disease may show various forms, from still births with characteristic edema to mild anemia. The changes in the brain are probably the most serious from every angle. Should the infant survive, it may be feeble minded, deaf or develop other deformities. The basal nuclei show a yellow discoloration, which is due primarily to dead or damaged tissue taking on bile pigment. The jaundice is not considered a causative factor.

In part two the author discusses the bearing of rhesus incompatibility in reference to contraception, sterilization, abortion, adoption, artificial insemination, divorce, and population problems. The author's sound attitude is well illustrated by the concluding paragraph in his chapter on sterilization. "It would be hard to justify sterilization in Rh incompatibility, and it would in addition be a counsel of despair to try to do so, for until a wife is past child-bearing age there is always the possibility that medical science will discover some way of preventing the development of haemolytic disease in a child before birth, which would enable the couple to have normal children."

The book has a full bibliography and an excellent index.

M.P.R.

Principles of General Psychopathology. An Interpretation of the Theoretical Foundations of Psychopathological Concepts. By SIEGFRIED FISCHER, M.D., Clinical Instructor in Psychiatry, University of California. Philosophical Library, New York. 1950. xxi-327 pages. Cloth. Price $4.75.

This book presents general psychopathology in a clear, concise, readable form which is excellent for reference or review. Definitions of terms are well done and their varying interpretation by different schools of thought recognized. The interlocking relationship and dependence of psychology, clinical psychiatry, and psychopathology is emphasized. Freudian concepts are utilized but the book does not indicate complete acceptance of this school.

Within the limitations of a rather small book for this large subject, the author has managed to pack an enormous amount of up-to-date information and has tempered it with his own clinical experience. Many controversial subjects are of necessity treated briefly and the interested reader would find further reading necessary.

L. H.

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PUBLIC HEALTH

L. J. ROPER, M.D.,
State Health Commissioner of Virginia.

The report of the Bureau of Communicable Disease Control of the State Department of Health for December 1950 as compared with the same month in 1949, and for the period of January through December 1950 as compared with the same period in 1949, is as follows:

	Dec. 1950	Dec. 1949	Jan.-Dec. 1950	Jan.-Dec. 1949
Typhoid and paratyphoid	4	4	88	148
Diarrhea and dysentery	97	196	3,741	5,870
Measles	274	57	2,947	21,393
Scarlet fever	119	126	937	861
Diphtheria	18	44	191	220
Poliomyelitis	43	7	1,197	337
Meningitis	8	5	120	84
Brucellosis	6	4	64	73
Rocky Mountain spotted fever	1	0	76	101
Tularemia	7	10	44	40

TRENDS IN COMMUNICABLE DISEASE MORBIDITY IN VIRGINIA 1920-1950

At the beginning of a new year it is well to take inventory to determine what measures are effective in the control of communicable diseases and in what fields control measures are lacking. The following table lists reported cases of certain communicable diseases in Virginia over a thirty year period:

The year by year drop in the number of cases of diphtheria reported in Virginia and the disappearance of smallpox in morbidity reports are due undoubtedly to active immunization of children in their early years. The principal factors in the lowered morbidity from typhoid are the maintenance of good environmental sanitation, the safeguarding of milk and water and the control of typhoid carriers.

In contrast, the high incidence of poliomyelitis emphasizes the lack of specific control measures. When an effective immunizing agent is developed for this disease it will fall into the group of preventable diseases like diphtheria and smallpox.

In Virginia we have been fortunate in having no human rabies reported since 1947, but the presence of rabies in animals (especially dogs) as evidenced by positive laboratory reports creates a continuing potential danger. The 94 reports of rabies in animals in Virginia in 1950 came from 21 counties and 1 city in the State.

The decline in the number of scarlet fever cases reported is possibly due to the widespread use of the antibiotics which, given early, so modify the course of the disease as to make diagnosis difficult.

DISEASE	1920	1930	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Diphtheria	4,370	2,210	709	754	699	395	329	577	548	273	265	220	191
Measles	9,488	14,656	4,171	35,600	4,930	12,595	17,116	1,625	13,443	8,000	7,749	21,393	2,947
Poliomyelitis	122	119	241	155	43	61	756	335	143	173	567	337	1,197
Rabies—Animal	28	78	72	22	89	277	334	113	108	162	158	82	94
Rabies—Human	0	1	0	1	0	1	1	2	1	2	0	0	0
Rocky Mt. S. Fev.	*	*	46	33	47	56	81	99	93	67	64	101	76
Scarlet Fever	2,280	3,114	1,781	1,715	1,637	1,842	2,969	4,246	2,721	1,316	899	861	937
Smallpox	3,559	264	5	0	0	0	1	0	0	0	0	0	0
Typhoid Fever	1,888	1,413	256	319	242	198	127	158	116	124	110	116	68
Whooping Cough	*	8,389	2,902	4,327	2,405	5,060	2,719	2,749	3,058	4,234	2,271	1,378	3,292

*No records available.

EDITORIAL

JOHN JACOB ABEL (1857-1938)

PHARMACOLOGY is one of the youngest of the medical sciences. It employs the methods of the chemist and the physiologist and it replaced materia medica in the medical curriculum. Before the advent of pharmacology our knowledge of drugs was extremely vague. For instance, the belief that alcohol was a stimulant went on for years. The pharmacologist debates such questions but spends his time discovering useful and potent drugs such as sulfanilamide, penicillin and aureomycin.

John Jacob Abel, the "Father of American Pharmacology", was born May 19, 1857 near Cleveland, Ohio. His family came from the Rhine Valley. He received his Ph.B. from the University of Michigan in 1883, having in the meantime been principal of the high school in LaPorte, Indiana, where he taught Latin, mathematics, physics and chemistry. In LaPorte, he met and married Mary Hinman, who for 55 years was a help-meet in every sense of the word. She stood by his side through many tribulations and encouraged her husband to acquire a broad, medical and scientific education. Abel's happy family life was a potent factor in his scientific career.

His medical education began with a year in Physiology under Newell Martin at Johns Hopkins. The next seven years he spent with some of the leading teachers in the medical schools of Europe—Leipzig, Heidelberg, Berne, Vienna, Würzburg, Berlin, Paris and Strassburg where he took his M.D. in 1888. Since there were few full-time positions in American medicine, Abel spent another year "walking the wards" in Vienna in case he would have to make a living practicing medicine when he returned to this country. However, this proved to be unnecessary as in 1891 he was offered the chair of Materia Medica and Therapeutics at Michigan which he occupied for two years. When the Medical School at Hopkins opened, he was appointed the first professor of Pharmacology. When he retired in 1932, he became emeritus professor and director of the Laboratory for Endocrine Research, which was created especially for him. He died May 26, 1938, rich in honors and awards.

His researches covered a wide field; composition of animal tissues and fluids; isolation and function of special chemical principles of the animal organism; ethyl sulphide; carbonic acid; pigment of Negro's skin; isolation of the blood pressure raising constituents of the adrenal glands; studies in experimental trypanosomiasis; action of convulsant dyes; researches on the lymph hearts of frogs; researches on vividiffusion and plasmaphaeresis; crystalline poisons of Bufo Aqua; albumoses in the tissues; occurrence of histamine and histamine-like substances in animal tissues and among the hydrolytic products of proteids; researches in tetanus; the nature of the active principle of the pituitary gland; insulin; and in 1897 the benzoyl of the active principle of the adrenal medulla. This was the first time a hormone of any endocrine gland had ever been isolated. It has recently been found, after all these years, that this was not one substance but two—epinephrine and nor-epinephrine. This only goes to illustrate the difficulty of the subject. He was also the first to obtain insulin in pure crystalline form.

Dr. Abel found his greatest enjoyment in actively carrying on his research with his own hands. An explosion in his laboratory caused the loss of an eye and, the first time we ever saw him, he wore a black patch over one eye. If we remember correctly he got an artificial eye in the summer vacation. It was a perfect match, and we boys were

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curious to know which was the good eye. Dr. Abel was so straight forward in everything he did, in his dealing with his class, in his thinking, in the way he looked at you that we were never able to decide which was his glass eye. Even with only one eye he could see further into the future than most people.

In 1913 he made an artificial kidney which he used upon laboratory animals. When in 1914 he noted that mamalian red blood cells retained their stability for three or four days if kept on ice, he suggested that a supply of human corpuscles might be kept in this way in operating rooms for use in cases of emergency.

Dr. Abel took very little interest in organizations and committees but was very much interested in scientific journals. He was associate editor of the *Journal of Experimental Medicine* when it was first established. He founded the *Journal of Biological Chemistry* in 1905 and the *Journal of Pharmacology and Experimental Therapeutics* in 1909. He was a founding member of the American Society of Biological Chemists and founded the American Society of Pharmacology and Experimental Therapeutics. The University of Michigan, Pittsburgh, Harvard, Yale, Lwow, Cambridge and Aberdeen conferred honorary degrees upon him. He was awarded the first Research Corporation prize, the Willard Gibbs, Conné and Kober medals and the medal of the Society of Apothecaries, London. He was an honorary member of six American and fourteen foreign scientific societies. His last honor, Foreign Member of the Royal Society, London, was received the day of his death. He had come a long way from a principalship of a small town high school in the mid-west. He had lived a life full of happiness and accomplishment.

Biological Warfare

BIOLOGICAL warfare may be directed against man, animals or crops. The agents employed may be bacteria, viruses, rickettsiae, fungi, protozoa or soluble toxins. They may be introduced by open attack or by sabotage, either independently or in connection with a bomb attack. It may be a deliberately planned attack or the enemy may take advantage of a naturally occurring situation and increase the disastrous effects of the disease by interfering with normal control measures. Biological warfare may be used either as an offensive weapon or a defensive measure. There is nothing particularly new about biological warfare; nature has been using it for thousands of years against man and man has now learned how to combat it successfully for the most part. World War II is the first war that was not complicated by an epidemic.

The first deliberate use of biological warfare occurred around Pittsburgh in the French and Indian war. The British innoculated some Indians with smallpox and turned them loose to spread the disease among the surrounding tribes. Here the conditions were ideal, for the Indians presented virgin soil for the disease, and the result was apparently satisfactory, from the English point of view. According to Benjamin Franklin, they tried the same trick in Virginia in the Revolutionary War. This time the English used negro slaves, sending them back to their homes after having inoculated them with smallpox. This time the measure was not successful, as no wide spread epidemic developed. The most successful biological warfare has been waged naturally by yellow fever in defensive operations. It defeated the English in the West Indies in 1762 and Napoleon's picked troops in 1800.

An important side of biological warfare is the psychological aspect. Just the mention of the subject brings to mind the great epidemics of the past; bubonic plague, the

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black death of the middle ages, pandemics of Asiatic cholera, and epidemics of yellow fever that formerly spread terror along the Atlantic seaboard and up the Mississippi valley. In war time people are subject to mass hysteria. Rumors are easily started and hard to stop. An instance of this occurred in the Civil War. A well known gynecologist was accused of planning to poison the water of the Croton reservoir. There was no proof whatever of the charge, but he was ostracized and expelled from connection with his medical societies. It was not until several years had passed and the people had somewhat recovered their senses that he was restored to his former positions.

Last fall Drew Pearson mentioned in his broadcast a rumor that yellow fever was rampant among Korean troops. This seemed extremely unlikely, for there was no known case of the disease closer than the West coast of Africa. Furthermore, the weather had already gotten too cold for mosquitoes. We were interested to know how such a rumor started. Dr. Pearson simply wrote in answer to our inquiry that the rumor was a mistake. We have an interesting letter from Dr. Arthur R. Turner of the Preventive Medicine Division to the effect that there has never been a case of yellow fever in Korea at any time. While there have been identified five species of *aedes* in Korea, and a sixth is said to occur occasionally, the *Aedes aegypti* (the vector of yellow fever) is not to be found there. "The report by Drew Pearson a few weeks ago, in his radio broadcast, that yellow fever had broken out among Communist troops in North Korea has received no confirmation from any source."

Nothing came of the Drew Pearson rumor, but the people are "jumpy" and there is no telling what their reaction to a false rumor may be. According to the newspapers, a recent rumor that the Birmingham water supply had become contaminated seriously interfered with the normal operations of the health department until the local broadcasting companies announced every 15 minutes that there was no foundation to the rumor.

Biological warfare is cumbersome and uncertain, slow in action, and subject to scarcely any control. To start an epidemic among human beings, animals or plants the conditions must be just right. On the other hand chemical warfare is easier to manage and quick in action. It seems likely that an enemy would choose the latter, but you must not expect an enemy to be logical. We must be prepared for any eventuality, and the best protection against biological warfare is a fully manned health department. It would be a mistake to curtail public health activities at this time in the interest of economy. Rather they should be built up to full capacity. They should be prepared to offer protection against botulinus toxoids, smallpox, tularemia, plague, typhus fever, Q fever, yellow fever, cholera, psittacosis and brucellosis.

The Bureau of Animal Industry and the Bureau of Entomology and Plant Quarantine of the Department of Agriculture are also important agencies in the defense against biological warfare, and should be maintained at full strength. Fortunately, the likelihood of curtailing the appropriations for these bureaus is not great, for the Department of Agriculture has always received its necessary appropriations.

Financial Aid to Medical Schools from A.M.A.

AT the meeting of the House of Delegates of the American Medical Association in Cleveland, December 5-8, 1950, a resolution was introduced instructing "the Board of Trustees to study the feasibility of establishing a fund for aid to Medical Schools to be created by voluntary contributions or by allotments from annual dues,

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such fund to be administered by the Board of Trustees or contributed to the National Fund for Medical Education, Inc."* This resolution was adopted and after consideration the Board recommended that half a million dollars from the National Education Campaign Fund be appropriated for the aid and support of Medical Schools that are in need. This proposal was passed unanimously by the House of Delegates.

Though this action constitutes a new departure in the activities of the A.M.A., it is by no means inconsistent with the fundamental principles and established policies of that organization. For more than a hundred years the A.M.A. has had as a main objective the advancement of standards of the Nation's Medical Schools and for many years, through its committee on Medical Education and Hospitals, it has expended annually more than a quarter of a million dollars of its funds for the improvement of Medical teaching. It is clear therefore that the purpose of this appropriation is that of maintaining and elevating standards that have been attained and to which the association is committed.

Contrary to what has been frequently stated by critics, the American Medical Association has not unequivocally opposed Federal Aid to Medical Education. Certain measures in the form of bills that have been under consideration by Congress have been opposed for specific reasons. These bills are objectionable because their provisions would inevitably lead to Federal Control with the establishment of a political grab bag that would ultimately result in deterioration of the quality of Medical teaching. The A.M.A. further believes that Federal Aid should not be sought until all other possible sources of help have been exhausted. It is felt that private means can and will meet the need provided proper effort is made in this direction.

This National Education Campaign Fund was raised for the purpose of defending Medical freedom against the inroads of Federal interference and control. An attempt has been made to convince the American People of the dangers inherent in Federal Subsidies and of the advantages of a free system. That this effort has been successful is evidenced by wide spread public cooperation with the result that major legislation looking toward regimentation of the medical profession has failed of passage. It is felt that in contributing its own funds the A.M.A., representing American Medicine, is keeping faith with the American people who have supported it so generously and is demonstrating the sincerity of its purpose to continue the fight to keep its institutions free.

It is believed that an understanding of this significant action will stimulate other groups and individuals to contribute to the cause of preserving the freedom and maintaining the standards of our Medical Schools. Already a considerable sum has been pledged without solicitation. Final plans for the distribution of this fund in accordance with demonstrated need have not been perfected but an announcement in this connection may be expected in the near future.

J. M. H.

*The National Fund for Medical Education is an independent non-profit organization set up for the purpose of providing financial aid to Medical Schools.

Floral Eponym
Ambrosini, Bortolomeo

AMBROSINIA

Ambrosini was a Bolognese botanist of the XVII Century. Linnaeus named the genus Ambrosinia in honor of him.

Ambrosinia is a dwarf perennial tuberous herb of Italy and Algeria.

President's Message

PUBLIC relations is becoming a very important part of our State Society. It is a pity that such a small percentage of our membership takes an active part in its proceedings. You cannot expect the Director of Public Relations and a few from each district to carry the entire burden. Each and every one must do his part if we wish to accomplish our aims.

If the medical profession had started several years ago to understand the public's viewpoint and to explain our view, or to understand each others needs and desires, we would not have gotten into the dilemma that we find ourselves in today.

The Legislative Committee of the American Medical Association's Washington office met on November 29, 1950, at White Sulphur Springs, West Virginia. Dr. J. M. Emmett, Mr. Henry Johnson, and your president attended this meeting. It proved to be a very interesting and informative gathering. The chief topic of discussion at the morning session was "Federal Aid to Medical Education". Dr. Joseph Lawrence, who conducted the session, was of the opinion that a bill giving government aid to Medical Education will pass the next Congress. The reasons given were, first, medical schools are badly in need of financial assistance. Second, a majority of the deans of the medical schools are in favor of the bill. Third, several very strong organizations are behind this bill, as the Veterans Administration, American Legion, and others. All those present went on record as being opposed to Federal Aid for Medical Education, as it would put medical schools under government control and in the hands of politicians, a thing which would be most undesirable.

When your instructors in medicine are appointed by the politicians, and when a student applies to his congressman to enter a medical school instead of to the dean of that school, medical education will be *rotten* to the *core*. That is what you may expect under government control.

The contribution of a half a million dollars by the A. M. A. to medical education was a grand idea. It will go a long way towards softening public opinion in favor of the profession. It lets the public know that we see and feel the real, immediate need of financial aid to medical education. Their suggested methods of raising additional funds was also an excellent idea, if it will work. To raise sufficient funds to supply the needs of all the medical schools by voluntary contributions, whether they come from private sources, wealthy foundations, or from industry, is a dream to be realized in the far distant future.

The writer feels that the responsibility of medical education lies with the States. It is most certainly true in Virginia. The sooner the public realizes that the expense of all education, academic and medical, must be supported by public funds, the sooner will we have a sound, financial educational program. The writer also feels that a general sales tax is the easiest and surest way of financing education. All will share the expense; all will share the benefits.

We must keep politics out of our educational program, but we ought to have more education and better medicine in reach of our politicians, if we wish to have a healthy political life.

If you believe in a sales tax to support our educational program, discuss the matter with the members of the State Legislature and with members of the State Senate before the Legislature convenes next January.

Dr. Lawrence stressed the importance of all physicians keeping themselves informed

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on all bills introduced in Congress which pertain to the Medical Profession and to Public Health. Write your congressman for a copy of the bills. After reading the bills, write your congressman your views. This is the only way they have of getting the public's view. Do not quiz them; inform them.

C. L. HARRELL, M.D.

SOCIETY PROCEEDINGS

The Fourth District Medical Society,

At its meeting on December 19 at Central State Hospital, Petersburg, elected the following as officers for the ensuing year: President, Dr. R. H. Bracey, South Hill; vice-presidents, Dr. F. M. Howell, Hopewell, and Dr. J. G. Graziani, Farmville; secretary-treasurer, Dr. James Thweatt, Petersburg; and chairman of the Steering Committee, Dr. Tyree Finch, Farmville.

The Lynchburg Academy of Medicine

Held its regular monthly meeting on January 8, at which time the new officers presided. Dr. Edward B. Tuohy of the Department of Anesthesiology of Georgetown University Hospital, Washington, spoke on "Anesthesia Management". The officers for 1951 are: President, Dr. J. W. Davis, Jr.; president-elect, Dr. E. S. Groseclose; vice-president, Dr. Wm. S. Hooten; secretary, Dr. Edwin A. Harper; and assistant secretary, Dr. Frank N. Buck, Jr. Dr. J. R. Gorman and Dr. J. E. Haynesworth were elected to three year terms on the Board of Trustees. Delegates and alternates were also named to the State meeting in October.

Medical Society of Northern Virginia.

At the last meeting of this Society on December 12, delegates and alternates to the next meeting of the State Society were elected and the officers were elected for the following year: President, Dr. George Long, Luray; vice-president, Dr. Frank Tappan, Berryville; and secretary-treasurer, Dr. Frank W. Gearing, Jr., (re-elected), Woodstock.

The Northampton County Medical Society

Held its regular quarterly meeting on January 11, at which time the following were elected as officers for 1951: President, Dr. John R. Freeman, Cape Charles; vice-president, Dr. Charles Robertson, Cape Charles; secretary-treasurer, Dr. E. M. Henderson, Nassawadox. Dr. H. L. Denoon of Nassawadox was named a member of the Board of Censors for a term of three years, and Dr. W. C. Henderson of Nassawadox was named Public Relations officer.

JOHN R. MAPP, *Retiring Secretary*

Roanoke Academy of Medicine.

Dr. E. G. Gill presided at the January meeting of the Academy, at which time the following program was presented:

Presentation of Clinical Patient—Detachment of Retina—Drs. Gill, F. D. White and R. D. Mertz

Case of Lymphedema—Dr. Charles B. Hooker

The Use of Male Sex Hormones in the Suppression of Lactation in the Postpartum Female—Dr. Rufus Ellett

Analysis of Cases Encountered in General Practice—Dr. William Foster

Experience in Prefrontal Leukotomy—Dr. Eugene M. Caffey

The Tazewell County Medical Society,

At its regular December meeting, elected the following officers for 1951: President, Dr. L. L. Thompson, Richlands; vice-president, Dr. M. B. Crockett, Tazewell; and secretary-treasurer, Dr. Mary E. Johnston (re-elected), Tazewell. Delegate and alternate to the annual meeting of the State Society were also elected at this time. Dr. J. K. Morrow of St. Albans Sanatorium, Radford, addressed the Society on "The Resources of Psychiatry".

Warwick County Medical Society.

This Society held its regular monthly meeting on January 9 at the James River Country Club. Dr. James Thomson of Norfolk was the guest speaker, his subject being Rupture of Lumbar and Cervical Nucleus Pulposus. Fifty-three members and eight guests were present. Dr. William H. Woodson and

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Dr. O. Watts Booth are president and secretary-treasurer, respectively.

Wise County Medical Society.

Members of this Society were guests of the Stonega Coke and Coal Company for dinner at the hotel in Appalachia on the evening of December 6. Thirty-one were present. A splendid exhibition of ventriloquism was put on by James Grubb and his "Gabby". Dr. Thomas Kuhnert of Bristol gave an excellent illustrated lecture on Coxa Plana. The host, Dr. W. B. Barton, presented from his hobby shop a hand carved and painted mahogany serving tray. Dr. T. J. Tudor drew the lucky number and also presented a report of the Roanoke State meeting.

J. D. CULBERTSON, *Secretary*

The Smyth County Medical Society

Held its regular meeting on December 20, with Dr. C. C. Hatfield of North Holston presiding, and Dr. Potter at the secretary's desk. A report was made on the blood bank, it being stated that eleven pints of blood are in the refrigerator at Lee Memorial Hospital. Dr. Walter Schiff of Marion was appointed as the Society's representative to the ACTH Conference. Dr. R. C. Potter of Marion reported on the annual Public Relations Conference and called especial attention to the Grievance Committee. Dr. W. O. Neal of Chatham Hill was voted an honorary member. Officers elected for 1951 are: President, Dr. R. H. Harrington, Marion; vice-president, Dr. R. C. Potter, also of Marion; and secretary-treasurer, Dr. Don Greever, Chilhowie. Dr. E. V. Richardson of Marion was named to the Board of Censors for a term of three years, and delegate and alternate to the State meeting were chosen. Dr. Hatfield then gave his presidential address, following which Dr. Boatwright of Marion expressed appreciation of Dr. Hatfield's leadership.

NEWS

The Tri-State Medical Association of the Carolinas and Virginia

Is to hold its annual meeting at Columbia, South Carolina, February 19 and 20, with headquarters at Columbia Hotel. Dr. R. B. Davis of Greensboro, North Carolina, is president and will preside at the various sessions. Those who wish help with their reservations should write Dr. W. C. Cantey, chairman of the Committee on Arrangements, Columbia.

Meeting at Hot Springs, Virginia.

Announcement has been made of the Sectional meeting of the American College of Surgeons on February 26 and 27 at Hot Springs, Virginia. This section embraces the entire southeastern region of the United States. Surgeons and members of the medical profession at large are invited to attend. Dr. Claude C. Coleman of Richmond is chairman of the committee on arrangements. There will be medical motion pictures, scientific papers and panel discussions. A dinner will be held on the first evening, at which Dr. Henry W. Cave of New York, president of the College, will preside. This will be the second sectional meeting of the College for 1951, the third meeting to be in Philadelphia, March 5, 6 and 7.

Scientific Exhibits.

Dr. Charles H. Peterson, chairman of the Committee on Scientific Exhibits of the Medical Society of Virginia, announces that the Committee will now receive applications for scientific exhibits for the October meeting of the Society at Virginia Beach. The deadline for applications will be June 15th. The executive committee will then choose those to be shown and notify the exhibitors by July 1st. This will be necessary because of the limited space at disposal for scientific exhibits. Applications should be sent to Dr. Eugene L. Lowenberg, 100 Medical Arts Building, Norfolk 10, chairman of the local committee for scientific exhibits.

State Health Department News.

Dr. F. A. Blesse assumed his duties as Health Officer of Henrico County, effective January 22, replacing Dr. R. M. Wilson who resigned on December 1, 1950.

Dr. Leon Leclerc assumed his duties as Health Officer of the Appomattox-Buckingham-Cumberland Health District effective January 4 with headquarters in Appomattox.

Dr. Frederick J. Spencer is Acting Health Officer of the Giles-Montgomery-Radford Health District,

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replacing Dr. F. C. Heath who was transferred to Fairfax County, December 1, 1950.

Effective January 2, Rappahannock County is being joined with Fauquier and Prince William Counties forming the Fauquier-Prince William-Rappahannock Health District. Offices for Rappahannock County will be in Washington, Virginia. Headquarters for the district will be at Warrenton rather than at Manassas.

Effective February 1, Spotsylvania County will be joined with the Fredericksburg-King George-Stafford unit forming the Fredericksburg-King George-Spotsylvania-Stafford Health District. Headquarters will be in Fredericksburg.

Dr. Paul B. Chapman, Health Officer of the Frederick-Winchester Health District, resigned as of December 1, 1950. He was replaced by Dr. Albin Lindall on January 22.

Dr. David Nye Barrows,

Director of Gynecology and Medical Executive Officer of the New York Polyclinic Medical School and Hospital, has been made Dean of the institution as of January 1st, 1951. Dr. Barrows also holds a position as Clinical Professor of Gynecology and Obstetrics at New York University College of Medicine.

American Red Cross.

In the interest of national security and world peace, the entire American Red Cross organization has been called on for an unprecedented expansion of its facilities.

Today's tremendous Red Cross defense tasks include:

Serving our expanding armed forces.

Training upwards of 20,000,000 Americans in first aid.

Teaching 1,000,000 women to care for the sick at home.

Training at least 100,000 volunteer nurses' aides.

Recruiting and training volunteers to assist with temporary shelter, food and clothing in event of war-caused or natural disaster.

The job is great. The need is urgent. Only with your help can Red Cross fulfill its obligations.

You can help mobilize the forces of mercy for the protection and defense of your family, your community and your nation by generous support of the 1951 Red Cross Fund Campaign.

Laboratory Training Courses.

The Communicable Disease Center announces a series of Laboratory Refresher Training Courses of one to four weeks to be given during the calendar year of 1951. Information and application forms should be requested from the Officer in Charge, Laboratory Training Services, Communicable Disease Center, U. S. Public Health Service, P. O. Box 185, Chamblee, Georgia.

Contact Camps for Reserve Medical Officers.

The Second Army Surgeon, Colonel H. W. Glattly and a group of specialists will conduct contact camps on the Second Army Area during February. The itinerary will include (in addition to those scheduled in Ohio for the 3rd and 4th): Philadelphia, February 10; Richmond, February 11; Pittsburgh, February 17; and Baltimore, February 18. An interesting and informative program of current topics has been arranged. The sessions will start at 1:30 p.m., but officers are asked to arrive early so as to make registrations in advance. Complete details may be obtained from unit instructors.

Dr. Walter J. Otis,

New Orleans, class of '15, Medical College of Virginia, on December 14 delivered an address on Psychiatry in Its Relation to De Paul Sanitarium and the South at the dedication of the Rosary Clinic of De Paul in New Orleans. This sanitarium was founded in 1861 by the Sisters of Charity of St. Vincent de Paul and has continued in active service to mental and nervous patients. Dr. Otis is medical director and neuro-psychiatrist-in-chief to the De Paul Sanitarium.

Postgraduate Course in Cardiology.

Emory University School of Medicine, Atlanta, is having a Postgraduate Course in Cardiology on March 5-9. Many well known doctors are included in the officers of instruction. A program and details may be obtained from the Director of Postgraduate Education, Emory University School of Medicine, 36 Butler Street, S.E., Atlanta 3, Georgia.

The National Conference on Medical Services

Will hold its twenty-fourth annual meeting Sunday, February 11, in the Red Lacquer room of the Palmer House in Chicago. The meeting is of special importance to presidents, secretaries, and public relations personnel of state and county medical societies.

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Heads DeJarnette Sanatorium.

Dr. G. Edmund Stone, who has for some time been on the staff of DeJarnette Sanatorium, Staunton, has been named superintendent, succeeding Dr. C. Earle Johnson, resigned. Dr. Stone entered upon his new duties on January 1.

Dr. Johnson has moved to Mississippi where he will conduct his private hospital—Hoye's Sanitarium —at Meridian.

"CA—A Bulletin of Cancer Progress",

Published by the American Cancer Society, is the newest weapon in the Society's professional education arsenal aimed at raising the general practitioner's index of cancer suspicion. Appearing bimonthly, "CA" features digests and abstracts of significant clinical and research reports selected from the world's voluminous cancer literature.

"CA's" editors select the material they believe to be of the greatest practical significance to the practicing physician, and present the essence in easy-to-read style. The pocket-size magazine is well-illustrated with art and photographs.

Each issue contains one or two articles by authorities on problems frequently encountered in office practice. Additional features are a question and answer department, a clinico-pathological conference recorded in successive institutions, an interpretive presentation of new developments and schedules of forthcoming medical meetings.

Twenty-four divisions of the Society, including the Virginia division, are issuing "CA" to approximately 50,000 practicing physicians. The Society hopes that eventually the magazine will go to every doctor in the nation.

Dr. Alfred P. Upshur,

Class of '08, Medical College of Virginia, and at present manager of the Staten Island Veterans Hospital, has been named manager of the 1,000-bed Veterans Hospital now under construction at East Orange, New Jersey. This appointment will be effective July 1 and the hospital will be opened in the Fall.

New Doctors for State Hospitals.

The State Hospital Board announces the appointment of Dr. Herbert Mead Bowlby as chief of service at the Western State Hospital, Staunton, and Dr. Abraham H. Dunn as chief of service of medical surgery at Central State Hospital, Petersburg.

Dr. Carroll M. Williams,

Associate professor of zoology at Harvard University, was recently awarded the $1,000 prize offered annually by the American Association for the Advancement of Science. Dr. Williams is a native of Richmond who received his Ph.D. in biology at Harvard in 1941; and his M.D. degree from the same University in 1946.

National Conference to Study Chronic Illness.

The first national conference of the newly organized national Commission on Chronic Illness will be held in Chicago at the Edgewater Beach hotel on March 12, 13 and 14.

The aim of the conference, according to Dr. Morton L. Levin, Chicago, staff director of the commission, is to determine how the chronic disease problem—the nation's No. 1 health problem—can be attacked at its roots through prevention.

The national Commission on Chronic Illness was founded in 1949 by the American Medical Association, American Hospital Association, American Public Health Association and the American Public Welfare Association. It is now an independent national agency studying the common denominators—the similar medical-social-economic problems presented by various forms of chronic illness and disability.

Co-sponsors of the national conference on preventive aspects are the National Health Council and the U. S. Public Health Service.

The American College of Allergists

Will hold its seventh annual meeting at the Edgewater Beach Hotel, Chicago, February 12-13-14, 1951. This year these will be section meetings: Phychosomatic aspects of allergic diseases, under the leadership of Harold Abramson, M.D. of New York; on Pediatrics, under Bret Ratner, M.D. of New York; on Allergies of the Nose and Throat, under George Shambaugh, M.D. of Chicago; on Allergic Diseases of the Skin, under Rudolph Baer, M.D. of New York City; and the Allergic Aspects of Rheumatism and Arthritis, under George Rockwell, M.D. of Cincinnati, as well as a general session of the College when hay fever, asthma and the newer drugs will be discussed under the leadership of John Mitchell, M.D. of Columbus, Ohio, the President of the College.

This year the College is trying for the first time

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the experiment of offering its post collegiate instructional course on the three days just preceding its annual conclave. This course has been arranged with the thought in mind that 10 per cent or more of all the patients in a physician's practice have an allergic component in their complaint. (The faculty consists of some 25 outstanding allergists.) The course is therefore an extremely practical one designed for any physician who wants to learn the basic principles of diagnosis and treatment of allergic individuals and techniques that are useful in the management of these patients. A fee of $35.00 will be charged for the three-day course lasting through February 9-10-11. For further information and registration write Fred Wittich, M.D., Secretary-Treasurer, American College of Allergists, LaSalle Medical Building, Minneapolis, Minnesota.

Special Study of Rheumatic Fever.

Dr. T. Duckett Jones, chairman of the American Council on Rheumatic Fever of the American Heart Association, has announced that the Council plans for an international cooperative study of the effectiveness of the hormone substances ACTH and cortisone in the treatment of rheumatic fever and the prevention of rheumatic heart disease. The long term study will be conducted through a central coordinating center in New York City and at twelve cooperative research centers in the United States, Canada, and Great Britain. This announcement is of especial interest to our readers as Dr. Jones is a son of the late Dr. and Mrs. J. Bolling Jones of Petersburg.

Wanted—

X-Ray male technician. Registered. 258-bed general hospital. Salary depending on training and experience. Give full particulars. Write De Paul Hospital, Norfolk 5, Virginia. (*Adv.*)

Office Space Available.

Doctor's or dentist's office available immediately, corner of Franklin and Harrison Streets. Call 5-4397, Richmond. (*Adv.*)

For Sale—

Four bed room house, all conveniences, and four-room office combination with a fully established practice in a town of over 4,000 shopping population. Only one other physician in town. Full selling price $20,000, including a $10,000 GI loan which may be assumed by the purchaser. Will introduce if sold within 60 days. Write P.O. Box 297, Buchanan, Virginia, or phone Buchanan 3671. (*Adv.*)

OBITUARIES

Dr. Ruth Mason-Grigg,

Prominent physician of Petersburg, died at her home on January 1. She was fifty-seven years of age and a graduate of the University of Virginia Medical School in 1925. She served an internship in New York, following which she located in Petersburg. She was quite active in local medical circles and had served as president of the Petersburg Medical Faculty. She gave up private practice two years ago to become head of the dispensary at the WAC training center at Fort Lee, which position she held until her death. She is survived by her husband and two daughters.

Dr. George Abbitt Torrence,

Who practiced in Bath County for twenty-five years, died January 11 at Fort Lauderdale, Florida. A native of Appomattox County, he was fifty-eight years of age and a graduate in medicine from the Medical College of Virginia in 1914. Dr. Torrence was chairman of the Bath County Democratic Committee and a prominent political and civic leader. He was also a Shriner. His wife and two daughters survive him.

Dr. Roy C. Fravel,

Well known surgeon of Woodstock, died January 13 after an illness of several months. He was sixty-eight years of age and a graduate in medicine from the former University College of Medicine, Richmond, in 1909. For several years he was associated with the McGuire Clinic in Richmond, and served in World War I as a surgeon in various hospitals in France. He was a Mason, a member and former president of the Woodstock Lions Club, and took an active part in many civic enterprises. His wife survives him.